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Address.

DEVELOPMENT AND CARE OF CHILDREN.

CHAIRMAN'S ADDRESS BEFORE THE SECTION ON DISEASES OF CHILDREN AT THE FIFTY-FOURTH ANNUAL SESSION OF THE AMERICAN MEDICAL ASSOCIATION AT NEW ORLEANS, MAY 5-8, 1903.

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It is with no little temerity that I enter on my duties of opening this Section of the Fifty-fourth Annual Session of the American Medical Association, while it is a great pleasure to appear in this capacity in my native heath, as it were, for my childhood and early boyhood days were spent in the sunny south, and I feel that my early impression enables me to appreciate the high-grade sensitiveness of the southern gentleman, and when, added to this, he is one of our own cloth, I feel that I can bespeak for myself and my brethren the cordial welcome always accorded a visitor in the southern fold.

To this glorious old city that has been the scene of so many disquietudes we have come to study with you the best methods of the most important subject now before not only the medical profession but before the whole world, namely, how best to save the lives of the tender babes and develop them into sturdy manhood and womanhood, and let it be the privilege of this Section to consign to oblivion the dogmas and superstitions surrounding the treatment of diseases of children, and by our scientific accomplishments reflect the rays of the noonday sun on true preventive medicine.

It is also within the province and power of this Section of the great medical body to refute the most dangerous and far-reaching condemnation of the medical profession that has ever been made, namely, that physicians are a national detriment because they preserve the weak and thereby weaken the whole nation. But we are at the wheel and helm not only to preserve the weak but to strengthen them, and so prove ourselves, as in the past, the greatest body of human benefactors that ever has or ever will exist.

Let us see anatomically and physiologically what this specimen is we call a child. Is it true that a man is simply a grown-up child or a child an immature man? Once clear on this subject, we are better prepared to study its requirements and judge of its capabilities. Fehling gives the percentage of water in a very young fetus as 97.5. Instead of this being a permanent feature, it is merely a transitory one and diminishes steadily until after birth it is 74.7 per cent. The decrease continues gradually but more slowly until in the adult it is only 58.5 per cent. Oppenheim's researches show us that the osseous system undergoes marked changes, that the organic and inorganic elements bear inverse ratio to the age from one to twenty-five, and this fact gives us an insight into the relative period over which ossification is spread.

Thus the walls of the shafts continue to grow thicker from birth to puberty and in some instances do not attain full development before the twenty-fifth year. Take, for instance, the bones of the head and face, the upper and lower jaw begin to ossify in early life and continue to change all through childhood and youth and do not attain full development until after puberty. Again, taking as an example the layers of cartilage which act as cushions between those important parts of the skull, the basi-occipital and basi-sphenoidal bones do not allow them to unite until after the twentieth year. This condition serves to make other changes that are equally if not more important. We should keep these things in mind for their bearing on the rightful exercise of a child's functions.

The muscular system develops simultaneously with the osseous, but neither of them make a harmonious and uninterrupted development. A child is more supple than an adult, not because he has more muscle but a relatively larger proportion of muscle to tendon. As a matter of fact, there is less of the elements that make the body weight, and the percentage of water is greater and the myosin less.

A few facts of relative proportion will serve to illustrate the anatomic and physiologic difference between childhood and adult life.

The circulatory and respiratory system, the changes in the heart are noteworthy. In the fetal stage it occupies nearly the entire thoracic cavity. At birth it is still relatively larger than in the adult life. Mathematically, the new-born heart is 0.89 per cent. of the body weight, while the adult heart is only 0.52 per cent.

The rapid and irregular strides made by the lungs at different periods of development make the compensation between the lungs and heart a little uncertain during the developing period. Also the relative difference between the heart and the arterial system at different periods of growth makes an uncertain and unreliable blood pressure through youth and adolescence.

The blood elements themselves are different in childhood from adult life, rich in the so-called young-form elements, while the over-ripe is only one-half as abundant as in maturity.

The changes in the nervous system from birth to maturity afford us many examples of the difference between the child and adult. At birth the central nervous system, as well as the peripheral, is almost entirely unmedullated. Hence, we find the fibers of the spinal cord, the medulla, corpus quadrigeminous and the pons varolii

mainly somatic. The motor nerves receive their attachments much earlier than the inhibitory centers are developed, hence the many objectless movements that characterize the unmeasured exercise of the young.

Thus maturity is gradual and full growth is only reached between puberty and adult life. It is our duty to guard and conserve every atom of energy through this period of unfolding and budding life, realizing that they are bundles of possibilities unsolidified, which begin at the beginning and end we know not where.

The study of biology teaches us that the higher the organism the slower the development, hence the necessity for a long period of protection and care. Take with this the many periods of stress and functional demands on the nervous system and we can realize the greater necessity for a wise and careful guardianship.

And who shall give this care and protection to the child who has been unfortunate in the selection of its parents? How much have we a right to expect from the state and how much is the state at liberty to interfere?

As citizens we have a right to expect common protection to our lives and property in return for a consideration the state exacts of us, but the state has a higher and more exalted motive in surrounding us with every care and protection, for we are its soul and body, its producer and consumer, its parent and offspring and, as every child born is a possible parent and citizen, it behooves the state to give it every protection and opportunity for a full development of all its best and highest capabilities, with a minimum facility for the development of the depraved side of humanity.

There is a wonderful significance in the fact that humanity continues its life on the earth by means of successive generations, and to conserve the nation's integrity one must protect and conserve the rising generation, and were it different how meager our advancement would be. It is only step by step of succeeding generations that the greatest heights of science, art and humanity are attained.

REGULATIONS OF CHILD LABOR.

Let us see what is being done by the state for the betterment of our successors. In speaking of the state, I refer to it in its specific rather than its general meaning, as the government of the United States has concerned itself little, if any, in the rising generation, while the states that have taken any action at all have regarded the subject from such different points of view one would think they were dealing with entirely different nations, with different environments and with entirely different objects to be attained.

Arkansas, Kansas, Georgia, Idaho, Oregon, North and South Carolina, New Mexico, Texas and Florida have not grappled with the subject at all, while about half as many states have only covered one phase of the subject.

The state of Washington does not allow small children to work in mines or females to act as public messengers. Utah protects children from working in mines only. Arizona protects her children against public exhibitions. New Hampshire has no law on child labor, but a very efficient compulsory education law. Alabama and Virginia have child labor laws pending. Fortunately in some of these states there are few manufacturing establishments.

Many of the other states have very efficient laws, others voluminous ones. Some states have legislated well on the labor question with little or no attention to compulsory education or provision for a child's time who is not allowed to work.

As early as 1874, in the Ten Hour Act, Massachusetts began to throw a safeguard around her children. In 1876 an act was passed making ten years the youngest age a child could be put to work in a factory. In 1883 the limit was raised to twelve years during school time, and in 1885 a law was passed prohibiting children working under twelve any time of the year. In 1888 the age limit was again raised to thirteen years.

These figures show the necessary changes from actual experience and have some bearing on the whole subject of the age at which children should be allowed to become wage earners. And yet, notwithstanding the fact that many of the states have enacted excellent laws on the subject of child labor, the application of them falls far short of the purpose for which they were intended. In many instances they only legalize the subject, protect the state and vicious parent, act as a sedative to public conscience and pervert their own purpose.

In all states having labor laws they take the age of the child as the standard of capability and the affidavit of the parents takes prestige over everything else in establishing this fact, which in many instances not only works physical detriment to the child but establishes in its innocent but honest mind its parents as liars; and, as the manufacturer is not required to be any better than the law, the applicant is accepted without investigation. With him it is business, not philanthropy. It requires but a slight stretch of the imagination to see this child at the juvenile court. One million seven hundred and fifty children under 15 years of age are wage earners in the United States at the present time, and this number has increased 100 per cent. in the last ten years.

Just one hundred years ago Sir Robert Peel directed the people of England's attention to the disastrous effect of child labor on the nation. He, with others, was startled to find they could no longer replenish the army from the manufacturing districts, the early factory labor had so dwarfed the rising generation.

Notwithstanding the vigor with which he and others attacked this plague, it took the best part of the following half century to consign it to oblivion. Germany, France, Austria and Russia soon followed England's example, and now "Free America" owns and controls the market in child slavery.

The result of this can not be different in this country from what it has been in others—a physically, mentally and morally weak and depraved generation, and I believe it eminently proper that a sentiment against this wholesale slaughter of childhood should emanate from a representative body of men such as this, who are devoting their lives to the care and improvement of the rising generation, and who are better prepared and more willing to cope with the subject than are any other body of citizens.

And what can we do? Elevate public sentiment and guide sentimental legislation. The state can better afford to support and educate a child from 7 to 20 years of age than it can to support paupers and discipline criminals from 20 to 50.

Not that I would deny any one the privilege of honest toil—far be it from me—for work is a civilizer, a developer of character and dignity, and endows the human race with an independence that nothing else will replace, and it is stated by men of keen observation and broad experience that no man in this country has ever risen to eminence, either in the medical or legal profession, who has not worked with his hands. It is not labor that makes or mars our characters, but the kind and environ-

ments during the developing period that prepares us for our future and greater tasks of life.

Factories aggregating a great number under unhygienic surroundings tend to minimize, while individual labor under good sanitary conditions tends to magnify the individual unit.

If any development occurs after a child is put to running a machine in a large factory, it is a one-sided one, making a genius or a freak, as circumstances may determine, depending on the part over-stimulated at the expense of many or all of the other faculties. Thus it is children come to have weak bodies and minds, not so much from heredity as from environment.

One may see how true this is (I quote from Oppenheim's "Development of Child") by the following report of the committee of the British Medical Association of 1883 in regard to the relative stature of boys between 11 and 22 in the population at large and at the industrial and reformatory schools. They found the tallest boys in proportion to their age in the public school. Below them came the boys in the so-called middle-class schools, and then those in the elementary schools and in the private military schools, and last of all the inmates of the industrial school, a difference of six inches existing between the first and last class.

This proportion is true at any period between the two mentioned ages. What has been found to be true of stature is also true of weight, a difference as great as twenty-five pounds existing between the first and last class; and what is true of body measure and weight is a strong indication of the mental state. Dwarfed bodies, as a rule, mean dwarfed minds and souls.

Thus, to break in on the nutrition and disturb the rhythm of development for one day means the marring of the body and harmony of a perfectly finished product. To conserve every atom of nutrition and force, protect every budding function, that we may deliver to posterity a perfect being becomes our highest and greatest aim in life.

How may we aid the state in adjusting this important matter? There are conditions which are familiar to all of us that should and must take prestige over all established state laws. As, for instance, the necessity of a child working to support its own life, to aid in the support of a helpless mother, or add to the maintenance of a young brother or sister, and I believe it is a conceded fact that there are no established rules or scales of weight, measurement, or mental development by which all children's ability to become wage earners can be established, as there are children that fulfill the requirements of the best established laws, yet by inheritance or previous environments they are physically and mentally unable to perform the duties required of the average child.

This is verified by a letter from Dr. James H. Dowie of New Holland, Georgia, who has had twenty years' experience with child labor in cotton mill life. Says the Doctor: "The children who are physically able for the duties do not succumb nearly so quick, if at all, to the factory labor. The wizen, wan and dejected ones so frequently seen in cotton mill towns are the results of over-taxation of the immature and lack of judicious application of efficient laws."

As it is not within the power of the medical profession to immediately change the present condition, we may improve it by lending our aid to the sanitary surroundings of the factories in which children are employed, see that at least 250 cubic feet of air space be allowed for each person employed from sunrise to sunset and that 400 cubic feet be allowed each person employed between the time the sun sets and rises, and that sufficient ventilation be arranged so that the entire air be changed every hour, with sufficient pure water to drink and an ample supply of sunshine, toilet facilities for both sexes employed, and to have such laws enacted as will provide for the protection, development and education of all children, with efficient administration and application of the law.

I would, therefore, recommend that each state have appointed a commission consisting of five members, at least two of whom shall be physicians, to have jurisdiction over all education and labor questions, and that said commission be appointed by the supreme judges of its state, and they in turn nominate or appoint inspectors, so that the question of child labor shall be forever removed from petty politics and vicious contract labor.

Original Articles.

THE DIAGNOSIS OF CUTANEOUS SYPHILIS.*

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NEW ORLEANS.

INTRODUCTION: ANACHRONISMS IN COMMON METHOD OF DIVIDING SYPHILIS INTO ARBITRARY GROUPS OF PRIMARY, SECONDARY AND TERTIARY.

The differential diagnosis of skin affections has always seemed a veritable *pons asinorum* to the practitioner, to whom all lesions look much alike and to whom the gross picture always seems present.

In the types of syphilis, however, exact lines of distinction characterize every set of lesions, and the experienced recognize these at once, often without even discussing the reasons why, the picture fixing the diagnosis on its own lines.

In current texts, now and latterly, so much of the traditional anachronisms have prevailed that it has seemed to the writer that some one, somewhere and somehow, should call a halt and at least utter a word against the further teaching of a dogma, which most of us feel is wrong and which as many of us would like to get away from.

With students of skin diseases in the undergraduate classes there is always most difficulty in fixing types; in syphilis this becomes additionally difficult when the very rules of diagnosis are as often excepted as found; so much so that the student is taught the opinion that syphilis is a "protean" disease, as if it were ever ready to change its type while you looked at it, when, as a matter of actual fact, no disease of the skin is as true to its types as syphilis nor more exact in its lack of confusion.

The "copper color" related as a part of the macular eruption of syphilis is a veritable mare's nest—the writer has never seen it—yet this type is a point so fixed in the minds of the writers of texts and in the field of vision of the student that on examination he always describes the roseola of syphilis as "copper colored." The induration of the chancre, the exact division of

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syphilis into a series of eruptions in fixed sequence, arranged according to a schedule of days, weeks, months and years, an easy rule of three, all these are beyond the experience of men who see syphilis, and these things should not be taught, for they are false teaching, and every day the men who do teach these things make excuses to themselves for doing so. Syphilis is certainly characterized more for its variants in types than for its obedience to rule. Our sole idea here is to throw the gauntlet to provoke a sort of discussion which will make more clear the definition of the types of cutaneous syphilis, according to some line of thought which is within the experience and observation, and not simply arbitrary, dogmatic, traditional or speculative.

In teaching cutaneous syphilis, for several years the writer has made the rule to look on its definition as determined by the lesions which presented, irrespective of antecedent history, irrespective of time or of the patient's record.

DEFINITION.

We have considered syphilis as a contagious and infectious disease due to a specific *causa morbi*, at present unknown, producing, among other constitutional and local symptoms, certain definite manifestations on the surface of the body, in the skin and deeper tissues.

DIAGNOSIS OF CUTANEOUS EVIDENCES.

Chancre.—The first evidence of syphilis is the chancre, which may show any time after infection, periods of time related being from four or five days to as many as 100 more days.

Location.—Irregular. At point of inoculation. On the genitals usually, but may be at any point exposed to venereal or accidental infection. Usual points of distribution are the penis, vulva, vagina, urethra, scrotum, thighs, pubis, lips, fauces, tongue; unusual, nose, fingers, neck, eyelids, cheeks, eyebrow (arch), etc.

Arrangement.—The chancre is usually a single lesion, but there is no reason why two points of inoculation at the same time might not each present a chancre after due incubation; we may note a double chancre of the upper eyelid, a chancre on each forefinger in a medical student as coming under the writer's observation.

Description of the Lesions: Types.—The chancre has various types. While described as a classic, the type made the rule, the Hunterian chancre, is the exception, and, as a matter of fact, is found oftener in its full classic form in the extragenital, accidental locations than in the common venereal location.

(*a*) *Hunterian Chancre.* 1. *Shape.*—A rounded ulcer, more or less deep, with central cavity and elevated borders.

2. *Consistency.*—Base and borders are indurated, the induration resembling cartilage in its consistency and hardness. The surface of the ulcer is more or less smooth, with thin discharge, depending on the cleanliness and general condition of the patient.

3. *Size.*—The size varies up to a silver half dollar (the larger lesions are more apt to be extragenital). This lesion is classic when found on the lips, tongue or at points where the thicker skin allows the cellular infiltration and induration.

Variant Types.—Much more usual is the excoriated lesion, found usually on the genitals, smooth, superficial and shiny, bleeding easily; slight border, thin parchment-like base, rolling between the fingers. This last point, however, we wish to say is not pathognomonic of the chancre, though the texts claim so; it may occur in any lesion of long standing on the genitals, mucous membranes of the foreskin and vulva particularly.

More usual still is the excoriated lesion, with irregular base, some cellular involvement, raw and tending to break down in parts.

Both of these types are small, seldom larger than a silver dime and neither sufficiently distinct as chancres to be diagnosed in all cases.

DIFFERENTIAL DIAGNOSIS.

Epithelioma.—Gradual development, deep central ulceration, little cellular inflammation outside of lesion, tendency to crust over a discharge which is thick and dirty. Microscope. On the genitals the epithelioma is almost always verrucose or nodose.

Lupus.—Presence of tubercles which ulcerate from time to time. Microscope.

Traumatic Ulcer.—History of injury, limitation of ulcer, lack of induration. On the genitals, however, there enter for diagnosis such conditions as herpes, chancroid, epithelioma and traumatism (hair cut, abrasion, etc.).

We must remember that the fear of syphilis in most patients brings them to the consultation and that the history is most times to be discounted by that fact. Again, as Taylor has often said, you can get any kind of a history from a patient if you go about it in the right way and if you ask him questions enough.

Herpes.—With the vesicles presenting the diagnosis is simple, but the patient may have been inoculated with syphilis when the herpes was produced, that is, if it followed the sexual act.

Postherpetic Ulcer.—This presents the same clinical picture as the excoriated chancre, and it can not be differentiated from it. It has the raw surface, indurated, parchment-like base, heals slowly, is slightly painful and only differs in one particular, *quid est*, the chancre is usually single, the herpetic ulcer more often presents in two or three points along the line of nerve distribution. I have seen postherpetic ulcers last for two months.

Chancroid.—The chancroid is differentiated on the points of development after starting, multiple lesions, beginning in a pustule, often seen as it is breaking, destruction of tissue, limitation of location to genital area; but when mixed with a chancre the diagnosis of the latter is practically impossible.

Traumatism.—The hair cut, abrasion, excoriation from friction, after a few days, or enough time to determine an ulcer, may not be distinguished from a simple excoriated chancre, which each then resembles. As a matter of actual fact, these are often the sites of the chancre, either inoculated at the time of the traumatism or in subsequent exposure.

THE IRREGULARITY OF SEQUENCE IN ERUPTIONS OF SYPHILIS.

The fact that any time from a few weeks to several months or years may elapse before general cutaneous evidences of syphilis appear, and that in many instances these never show, would tend to make the usual division of the skin sequences fallacious. Logically the term secondary should apply to lesions prior to those tertiary and logically these should not be concomitant.

Yet many cases have no secondary lesions, still they present tertiary lesions; others have both at the same time; still others have the so-called secondary lesions years after tertiary lesions have shown.

SYPHILIS IS A SELF-LIMITED DISEASE.

Depending on the resistance of the individual this means the restriction of the evidences of syphilis to simple types or the surrender of the individual to greater or less degree of malignancy.

These are to be determined by the powers of elimination of the individual, evidenced by the appearance of simple inflammatory lesions, macules, papules or by the failure to eliminate, evidenced by the lesions which are deposited in the skin and deeper tissues, at times in other organs as well, such lesions as tubercles and tumors (gummata). Not infrequently the lesion is a pustule, breaking down as it is eliminated, but with a limited area of destructive process.

If we classify the general lesions of syphilis, then, into groups of inflammation and of deposit we can study each of these according to its own type and each presents its points of distinction.

Examples only are needed to present the principles of diagnosis, as this paper is meant only to plead for a method free of the confusion which awaits the average physician, not the expert, and incidentally to evidence the desire to create a general opinion that syphilis is not so difficult of diagnosis in its cutaneous manifestations.

THE IDENTITY OF EACH LESION ON ITS OWN MERITS AND ITS DIFFERENTIAL DIAGNOSIS FROM OTHER LESIONS OF SIMILAR CHARACTERISTICS.

With this end in view, we shall take examples of the inflammation group of lesions of syphilis and present each with points of diagnosis; the deposit lesions to follow, and all this independent of any arbitrary relationship to the primary, secondary or tertiary distinctions.

LESIONS OF INFLAMMATORY GROUP IN SYPHILIS.

The macule of syphilis presents the following characteristics:

Size.—Usually small, as large as little finger nail, not necessarily uniform in size.

Form.—Irregular in outline, not rounded, a splotch on the skin.

Consistency.—Level with the skin, fading on pressure, but leaving slight discoloration behind. As the lesion disappears this discoloration sometimes stays for a time.

Color.—The lesion as it first shows is rose color, pink or yellow red, raw ham color. As it fades on pressure or in the natural course of the disease it leaves a yellowish color, "dirty-lace" color, often described as "copper colored," which color is only seen in the mulatto or light negro skin.

Arrangement.—Single lesion always discrete, not confluent. No grouping, really showing as an exanthem or rash.

Distribution and Location.—Found on flexor surfaces of thighs, belly, forearms, arms, back and chest (slightly usually), forehead, sides of scalp.

Differential Diagnosis.—The absence of subjective symptoms, the subacute character of the redness, the appearance gradually over a number of days exclude measles, scarlet fever, etc.

The absence of scales, the fixed size of lesions, which does not increase, once formed, exclude pityriasis rosea, tinea versicolor and seborrheic dermatitis.

The presence of the pediculi pubis and the blue, ashy gray color of the lesions over the belly and sides of chest exclude the maculæ ceruleæ of pediculosis pubis.

The Papular Lesions.—The papular lesion of syphilis is more highly organized than the macular and presents several types:

The flat papular syphilide, the circinate and lenticular papular syphilide have a common location and distribution on the flexor surfaces especially, the chest, arms and forearms, the forehead as the usual sites.

The circinate lesion is less numerous than the other two, more discrete and is not uniform in size.

In color each of these presents the raw-ham color. Except from seborrheic dermatitis the differentiation is clear. In this disease the scales are numerous, in syphilis unusual, in both the scales are greasy, but in the syphilide the base is less apt to be affected—it is usually firm—borders elevated in the circinate form, while in seborrheic dermatitis the base of the lesion under the scales is apt to be moist or even raw.

The acuminate, or rounded papular syphilide, is discrete, widely disseminated, very general and especially on the extensor surfaces of the arms, legs, shoulders, and is found on the face, in the "frame" of the face and on the forehead.

Smallpox clusters its papules, prurigo itches constantly and psoriasis spreads its lesions peripherally.

The miliary syphilide is unique in its type, having a clustered grouping on the extensor surfaces in numerous patches of lesions of uniform size, deep seated, small (miliary) and with a dull color, often not much different from the normal skin. These lesions occasionally vesiculate and would need to be differentiated from herpes zoster, if they were not so numerous, in many patches and bilateral and symmetrical.

Condyloma.—The condylomatous papular syphilide is characterized by the location on or near the mucous membranes or tender surfaces, as over the scrotum, thigh, the foreskin, vulvæ, anal folds and between the fingers and toes. Rarely the condylomata are seen on the neck or on the face, flat, excrescent, warty at times, but marked by a more or less smooth surface, constantly wet with a discharge.

On the tongue and in the buccal cavities the condyloma is flatter and marked by a white film.

The diagnosis from ordinary warts (acuminate) and from ringworm lesions, common in some of these locations, is easy. The flabby, soft consistency, together with the sticky discharge, makes the diagnosis.

In the mouth the soreness, rawness and crescentic contour are unmistakable.

The papillary syphilide is found in little elevations, like seeds of fine grain, in the palms, on the fingers and on the soles and toes. It may be picked out, leaving a slight depression, which disappears gradually with the scaling skin. The diagnosis is clear with the few lesions, bilateral and rather uniform in size.

LESIONS OF DEPOSIT.

A word only regarding the lesions of deposit. When syphilis has passed the period in its infective process where most of the element of toxicity is removed, there remain here and there certain traces of the virus, uneliminated, left in the tissues, either permanently encapsulated or ready to slough away on the slightest provocation.

Among the tissues or organs which may be involved is the skin. Here the syphilitic deposit has certain types, always readily recognizable.

The Tubercular Syphilide.—The tubercular syphilide as a single lesion may occur generally, in more or less close distribution, on the extensor surface, bilaterally. More often the tubercle occurs grouped in masses of lesions, found in particular sites of selection: the fore-

head, scalp, nose, scapular region, back, hands (palms especially), thighs, knee joint, just above or below, etc.

These lesions are either small as a pea, firm and rounded in the skin, staying for months, years even, as a fading and growing mass of tubercles, "bunched" together, without ulcerating or else only here and there breaking down.

The other type of the tubercular lesion of syphilis is serpiginous, ulcerating and scarring with pigmentation in the process. The horse-shoe, kidney-shaped, crescentiform clusters of lesions are typical of this lesion.

Perhaps no lesion of syphilis goes more undiagnosed than this one. The only diseases having any resemblance at all are tuberculosis cutis and leprosy. Lupus vulgaris differs in the color of the lesions, their consistency and the arrangement irregularly in groups of rapidly breaking lesions. Moreover, the tubercles of lupus are usually found in the face, seldom elsewhere. With leprosy the tubercles are always disseminated, single, little tendency to cluster, the arrangement being usually determined by the gradual evolution of the tubercle, which may develop from a pinhead-sized lesion to a lesion as large as a marble, hence lesions of all sizes are found between these two. The color, moreover, is *sui generis,* a dusky brown red.

The Gummatous Syphilide.—The gumma of syphilis is more properly not strictly cutaneous, but has its own diagnostic points. It is usually limited, but may be general. Sites of predilection in the order named: leg, forehead, scalp, nose, shoulders, buttocks. The distribution is usually at points of weaker circulation: On the leg, along the line of the tibia or in the middle third, etc. The arrangement is by single lesions, varying in size largely according to its distribution. The lesion itself may be superficial, crusted, with slight cellular inflammation about it; it may be nodular, gradual in evolution, finally sloughing as a whole, or it may be large, flat and only slightly elevated, here and there forming punched-out, small ulcers, afterwards causing the whole gummatous mass to slough, leaving the ulcer of syphilis with its single odor and characteristic configuration.

Sarcoma, mycosis fungoides, etc., are to be differentiated. Clinically the points of diagnosis are based on the fact that sarcoma begins in a nodular mass, growing in size and that it breaks down by excoriating and gradual ulceration. Mycosis fungoides begins with a granuloma, growing warty and increasing in size until it is many times larger than the initial lesion.

SOME CONCLUSIONS.

The above outline has been done as cursorily as possible and is not intended as an exhaustive diagnosis of syphiloderms.

If each type of syphilis, then, may carry its own points of recognition and definition, capable of diagnosis on these points, why not use such a method of diagnosis which precludes the speculative line of thought which only clouds or forbids an intelligent conception of syphilis?

DISCUSSION.

DR. HENRY G. ANTHONY, Chicago—The author states that he has never seen a copper color in the syphilitic roseola. The copper color does not occur in every case of roseola, but it may be observed in some cases. In these cases the eruption is first of a rosy color and within a few days becomes copper colored. That fact has been greatly exaggerated and is now exaggerated by the general practitioner, but to the dermatologist it is no longer a point of importance.

The Doctor mentioned that form of infection in which chancres will appear on different parts of the body at the same time. That is what the French call chancre à distance. I have observed a case in which the patient had at one time a chancre of the tongue, a chancre of the penis and a chancre of the finger. In connection with chancre à distance there are two points to which I wish to direct your attention: First, the literature of these cases shows that the chancre virus is always deposited in these different locations at one and the same time. The patient does not get a chancre of the tongue and ten days later have the virus deposited on the finger, and then ten days later still on the penis, but it is deposited at one and the same time in all the different locations. The next point in chancre à distance is that unless there is mixed infection the gland is enlarged only in connection with one of the chancres and not with the others.

I wish to direct attention to the differential diagnosis between a chancre and a gumma. A gumma situated on the penis will many times produce a lesion which can not be distinguished from a chancre. Leloir makes this distinction: he says that a chancre is an abrasion which takes on induration, and a gumma on the penis is an induration which becomes eroded or ulcerated. Kaposi makes the statement that there are cases in which a diagnosis can not be made from an examination of the lesion and one can only make a diagnosis by considering the history of the case and considering lesions on other portions of the body. Several cases of that kind have passed under my observation. A patient gives a clear history of syphilis, has a perforation of the palate resulting from an ulcerated gumma occurring five years before. He presents himself with a lesion of the penis which at first you would diagnose as a chancre. Knowing the literature of chancre redux, chancriform syphilome of Leloir, or gumma of the penis (these terms are all synonymous), the first diagnosis which would come into your mind would be a gumma and not a second infection of syphilis. You would only make the diagnosis second infection of syphilis when driven from the diagnosis gumma by the subsequent symptoms, such as enlargement of glands at the proper time, the appearance of the roseola, neuralgic pains and temperature which mark the onset of secondary syphilis. Strange to say, no attempt has ever been made to differentiate these lesions by microscopic study of their structure.

DR. A. H. OHMANN-DUMESNIL, St. Louis—The subject is very interesting to me in regard to the nomenclature, as well as some points raised by the author. Primary, secondary and tertiary is reeled off to students, but it is not true. I have seen a case where there were two large chancres, no secondary eruption, and then catarrh of the ear developed and an eruption appeared on the eyes. I made a diagnosis of gummata of the iris, and some ophthalmologist agreed with me. So far as a herpetic chancre is concerned, that diagnoses itself. It is an interesting fact that in herpes, a syphilitic chancre developing on herpetic lesions, the herpes on pressure will produce a drop of serum and after waiting a few moments will give another drop, but the herpetic lesions will have but one drop.

I do not know what the last speaker meant by chancroid form of syphiloderma. We have a chancroid form of syphiloderma developed on the first chancre, which is the chancre redux, and any one examining the case closely will find all the characteristics of chancre. Of course, one who is experienced will make no mistake, but those who are not experienced, how will you protect them? I have seen a pseudo-chancroid which had all the characteristics of a chancre, and the patient had to wait four months to be certain that it was not syphilitic.

DR. ISADORE DYER, New Orleans, in closing the discussion, said: I have only a word to say and that is I still wish to insist regarding the evident incorrectness in the differentiation of the types of syphilis. As a teacher of dermatology and syphilis I find it exceedingly difficult to gather any idea of syphilis from the text-books. They are misleading in their definition of exact types, which do not exist in the clinic, which I have not seen after an experience of twelve years in the practice of syphilis and dermatology. I have never seen the copper color in the early syphilide; I have only seen it follow an

ulcerative lesion. I may not know what "copper color" is; if you speak of a raw-ham color, that means something to me, but I have never seen a copper color in a macular syphilide, nor has the student in my clinic seen it.

AN INTERESTING CASE OF LUPUS VULGARIS.*

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CHICAGO.

The patient who furnished the subject of this short paper was referred to me by Dr. Henry Burwash of Chicago. The history of the case is as follows:

Mrs. M. W., aged 53, Canadian; married fifteen years; no children; was never pregnant; had never been robust, but enjoyed fairly good health; never had a blemish of any kind or character on the skin until the age of 48 when, three months after an operation for the removal of some polypoids from the nose, she noticed a small nodule on the left cheek. About this lesion soft papules continued to appear for three years, when ulceration commenced in the original nodule. The ulcerative process spread peripherally until two-thirds of the cheek had become involved in the destructive process, as attested by marked scarring and some ulceration at the time the patient came under my observation. There were also present a nodule on the right cheek and several nodules in the neck and throat, with marked enlargement of the sublingual and submaxillary glands on both sides. These enlarged glands had persisted for over four years, without any evidence or appearance of pus. One brother died of consumption twenty years ago, our patient having cared for him ten months previous to his death. Two aunts, on both the mother's and father's side of the family, died of consumption. The patient's mother and father, however, are still living and enjoying good health.

COMMENTS ON THE CASE.

The points of special interest in this case, to my mind, are:

1. The age at which the disease developed.
2. The enlarged lymphatic glands.
3. The possible sources of infection, namely, from her tubercular brother, or at the time of the operation on her nose.
4. The differential diagnosis between lupus vulgaris and tuberculosis verrucosa cutis.

Our ideas regarding lupus vulgaris have undergone radical changes during the past quarter of a century. We have passed through a heated controversy regarding the nature of the disease, and Kaposi and his followers, who contended that lupus vulgaris is not tuberculosis, are, I am convinced, ready to acknowledge that this question is no longer a live issue. Most of us were brought up in the belief that the disease invariably begins in childhood. We have lived to learn that there are exceptions to this rule. The disease may develop at any age of life. Our text-books of to-day are much less positive on this point than they were a few years ago. Elliott[1] has reported one case and cites five other cases of the disease which developed in adult life. We have become accustomed to looking on lupus vulgaris as true tuberculosis of the skin, and tuberculosis verrucosa cutis as tuberculosis by inoculation. This distinction is a convenience in teaching, but we, as specialists, must recognize the fact that it is far from being accurate. Lupus vulgaris may be produced by inoculation and it may be produced by a transformation of other forms of tuberculosis.

A few months ago a boy was presented to the Chicago Dermatological Society by Dr. Pardee with a large ulcer on the cheek, from the surface of which luxuriant granulations were growing. The members present agreed on the diagnosis of tuberculosis, but not of lupus. Of the various forms of tuberculosis which were suggested as a possible diagnosis, that of scrofuloderma was the one in which I concurred. Scrofuloderma, as Jadasohn[3] states, is a subcutaneous tubercular deposit, the skin covering which has been destroyed by ulceration, leaving a denuded surface from which fungous granulations spring up. In this case, after treatment with the *x*-rays, the granulations disappeared, leaving a scar. When the case was presented to the society a second time typical lupus nodules were present in the scar tissue. In my judgment it was a case of transformation of scrofuloderma into lupus vulgaris.

Fabry[3] states that he has observed this transformation of scrofuloderma into lupus vulgaris. He has also seen a tubercular gland suppurate, discharge, the fistula heal and lupus develop in the skin adjacent to the scar of the fistulous opening; where the fistula closes such cases may easily be mistaken for primary lupus vulgaris with secondary glandular enlargement.

He further states that he has seen tubercular dactylitis produce lupus as well as tuberculosis of the bones and joints. Crocker[4] says that Jadasohn reports a case in which lupus developed in a tattoo-mark, caused by wetting the India ink with tubercular saliva; also one in which a tubercular ulcer of the finger in a butcher, caused by inoculation, produced lupus at a point higher up on the extremity.

Dubois Havernith[5] says: "Inoculation by continuity of tissue is frequently observed at the mouth of fistulæ, occurring in connection with tuberculosis of the joints and bones and lymph glands which have suppurated and opened spontaneously or have been cut into by the surgeon."

In a large number of cases it will be found that the disease has originated in some wound (abrasion or scratches), or in some anterior disease, as erysipelas, eczema, a blister, an irritated pimple and the like, pointing clearly to inoculation. Lupus nodules occurring early in a vaccination scar are presumably the result of inoculation of tubercular virus present in the vaccine.

Havernith cites an instance in which a girl who slept with her sister, who was affected with lupus vulgaris of the left cheek, acquired a lupus of the right cheek, which she habitually laid against her sister's face.

These facts are cited simply to show that because the only explanation which we can offer as to the manner in which our patient contracted the disease, namely, at the time of her operation on the nose or by nursing a brother suffering from pulmonary tuberculosis, does not exclude lupus vulgaris as a diagnosis.

DIAGNOSIS.

Clinically, we concluded that our case was lupus and not tuberculosis verrucosa cutis for the following reasons:

1. The rapid development of the disease.
2. The fact that the lesions present were not the waxy-like lesions of tuberculosis verrucosa cutis.

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Cutaneous Medicine and Surgery, and approved for publication by the Executive Committee: Drs. H. W. Stelwagon, W. L. Baum and J. A. Fordyce.

1. Journal of Cutaneous and Genito-Urinary Diseases, 1896, p. 476.
2. Berliner Klinische Wochenschrift, 1900.
3. Archiv. fur Dermatologie und Syphilis, vol. xxxix.
4. Diseases of the Skin, third edition, p. 774.
5. British Journal of Dermatology, 1891, p. 360.

3. Because the brown spots of beginning lupus were present.

There were no typical velvety, waxy nodules of lupus present at the time the case was under observation, but it is not uncommon to find them absent in typical cases when the patient first comes under observation. The lesions present were all such lesions as may be seen in lupus. We must endeavor to recognize and diagnose the atypical as well as the typical cases, and at the same time not lose sight of the fact that we have what may be termed border-line cases.

HISTOLOGY.

Histologically, the case showed the structure and the deep-seated location of lupus. As is well known, the lupus nodule is deep seated, while the lesion of tuberculosis verrucosa cutis is superficially located.

Stelwagon[6] shows an excellent cut of tuberculosis verrucosa cutis, taken from one of Bowen's cases, which shows the downward prolongation of the rete pegs and the superficial location of the disease, which was not the microscopic findings in our case.

By inoculation is, to my mind, the most frequent manner of contracting lupus vulgaris in adult life.

The enlargement of the lymphatic glands in connection with lupus may be due to surface infection, but, as Leloir has shown, it may also be due to the presence of tubercle bacilli in the gland. The non-inflammatory character of the enlarged glands in this case, and the length of time they had existed, rather impress me with the opinion that they were tuberculous. The lymphatic glands which were enlarged were situated on each side of the chin in the neck, indicating that absorption had occurred through the superficial facial lymphatics.

That tuberculosis of the skin is contagious in a greater or less degree there can hardly arise any doubt. In view of this fact it is well to follow the suggestions of Neumann,[7] who believes that inoculation of children and others by persons with tuberculous lesions on the skin or adjacent mucous membranes is more frequent than is generally recognized. In one place he observed four cases in one year of tuberculous lesions of the penis in children who had been circumcised. Tuberculous lesions of the upper air passages, as well as of the face and mouth, may inoculate others with tubercle bacilli by intimate contact, especially active and passive osculation. He urges scrupulous care in regard to disinfection of articles used by persons with any cutaneous tuberculous affection, scrofuloderma, etc., and regards cutaneous tuberculosis as, in fact, a more threatening source of infection than pulmonary tuberculosis, for the reason that its tuberculous nature is so often unrecognized. Dressings used by persons with tuberculous lesions of the nose, vulva, vagina or uterus, etc., scrofuloderma, miliary tuberculosis and lupus should be burned at once and attendants should frequently disinfect their hands.

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DISCUSSION.

DR. J. H. DUNCAN, St. Louis—From the description of Dr. Campbell's case I could not help thinking there might be a mistake in the diagnosis. I could not make up my mind that it was a typical case of lupus vulgaris, but rather some other tubercular condition of the skin. I learn that there was a difference of opinion as to the character of the case when it was presented to the Chicago Dermatological Society.

DR. JOSEPH ZEISLER, Chicago—I should like to use this occasion to emphasize that dermatologists should be exact in their diagnosis of cases which fall under the generic term of tuberculosis of the skin, pathologically speaking. I long ago joined with those who look on lupus as an absolutely classical manifestation of tuberculosis of the skin. But with others, I recognize a great many other forms of tuberculosis of the skin, many of which have been mentioned in this paper and which are clinically totally different from lupus. Yet, we still see a great deal of slipshod use of the term tuberculosis of the skin, which, in the last ten or fifteen years, has become to many what we would call in German "eine Eselsbrücke" (*pons asinorum*). In other words, it is used by a great many to cover up their unfamiliarity with clinical dermatology when a distinct variety of cutaneous tuberculosis should be specified. Particularly is it necessary, it seems to me, to retain the term lupus for all those forms of tuberculosis which belong to the classical type we have all learned to recognize as lupus, a disease which begins in early life and is characterized by deep-seated, brownish nodules, which may retain their condition for many years. A diagnosis of lupus is often made not in harmony with this clinical picture. The fact Dr. Campbell has pointed out that his patient acquired her trouble at the age of 48, or something like that, would not necessarily confuse me. I have formerly believed and taught that lupus always begins before puberty, but that can not be maintained at the present time; we certainly see cases of true lupus which begin later in life. I would not question the Doctor's diagnosis on that account. I was somewhat surprised that Dr. Campbell found it necessary to differentiate his case from tuberculosis verrucosa cutis. To my mind tuberculosis verrucosa cutis is distinctly confined, as a rule, to the backs of the hands and fingers, and I could not gather from his description that there was that peculiar wart-like condition or small stalactite prolongations from the skin which I would consider necessary to make that diagnosis. In conclusion, I wish once more to urge the need of retaining the different varieties of tuberculosis of the skin under distinct clinical names rather than to make it too easy for us by grouping all of these cases under the generic term of tuberculosis.

DR. HENRY G. ANTHONY, Chicago—I agree with Dr. Zeisler that we must maintain very strictly our divisions, and that we must look on lupus as a distinct type to be separated from everything else. Further, I agree with him that it has heretofore been used in a loose manner very frequently.

I had an opportunity of seeing Dr. Campbell's case. It was shown before the Chicago Dermatological Society. Some of those present made a positive diagnosis of tuberculosis verrucosa cutis and disputed the diagnosis of lupus. I was interested in the histologic picture the case presented, I therefore obtained from Dr. Campbell some of the tissue and studied it with care, comparing it with a section from tuberculosis verrucosa cutis, and it corresponds with lupus in every way.

DR. R. R. CAMPBELL, Chicago—In answer to Dr. Duncan's criticism, I tried to clearly set forth that no claim was made that it was a typical case of lupus vulgaris, but that we should be able to recognize and diagnose atypical as well as typical cases; furthermore, that we must recognize that we have borderline cases.

Regarding the suggestion of Dr. Zeisler, I question if tuberculosis verrucosa cutis should come into consideration. It was brought up at the meeting of the Chicago Dermatological Society, and Dr. Zeisler himself at that time suggested that we must look for the cause of the infection, that while he concurred in the fact that it might be a case of lupus, and probably was, yet he would like to know where the infection came from, as it was unusual to find the disease beginning at that period of life. As to tuberculosis verrucosa cutis occurring only on the backs of the fingers, we have exceptions to that rule. I have in my practice now a case of tuberculosis verrucosa cutis of the fingers and over the patella, and several months ago I discharged as cured a case of tuberculosis verrucosa cutis of the buttocks, referred to me by Dr. J. B. Murphy of Chicago, to be treated with the *x*-ray. I think we should be cautious about laying too much stress on the classical seats of diseases.

6. Diseases of the Skin, p. 689.
7. Neumann: Wiener Klin. Rundschau, vol. xvii, No. 1.

THE STUDY OF PEDIATRICS:

IS IT WORTH THE ATTENTION IT GETS, AND DOES IT GET THE ATTENTION IT DESERVES?*

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The subject of my paper consists in two questions that seem antithetic to each other, and I ask these questions in the same spirit that evoked the old and trite saying, as true as it is old, "Whatever is worth doing at all is worth doing well." If the symptomatology, etiology and treatment of the diseases of early and adult life were precisely alike there would be no need for the special study of pediatrics; but they are not alike, as they differ often in their pathology, yea, even in their anatomy, to such an extent that good treatment for a given disease in an adult would be bad treatment for a child. Again, some diseases that in childhood are very severe and correspondingly fatal, in adult life are extremely mild or do not appear at all or at least are rare, and the converse is exactly true of others. So the reason for the Section on Diseases of Children, in which their ailments are especially studied, is clear enough.

Now, is the study of this class of diseases worth the attention it gets? Some say "No," because it would not pay a man, except in the very largest cities, to confine his practice to children exclusively; he could not make a living at it. Now, for sake of argument we admit that, and while doing so ask another question—a habit we acquired when a small boy—namely, "What per cent. of the general practitioner's work is among the children, namely, all his patients from birth till their eighteenth year of life?" And further, "How many times has he made his entry into a good family's practice because baby was sick?" I hazard the answer that by far his largest income is derived from that source, both directly and indirectly. Directly because there are more children than adults; not so much among the 400, but, thank our luck, among the 400,000; and secondly, because children are more frequently sick than adults, even were they of equal numbers.

Another reason that might be adduced is that most parents are more solicitous about their sick children than about themselves, and that physician who can successfully cope with children's diseases can most easily find the way to the mother's heart, which is the golden key that unlocks the door that gives you entry to the whole family. Parents will risk their lives, or all they have, when their children are in danger. A mother, especially, would rush into a burning house if she thought one of her children were in it, and she would not question for a moment concerning her own danger. Likewise when a child is sick, she will send for medical aid much sooner than if she herself were ailing. She will also readily detect the skill, or want of it, of the physician called, and if she is convinced of his inability in treating her baby, she will have very little confidence in him hereafter for any other member of the family no matter how skilful he may be in other branches of the medical art. It is very foolish, and worse than silly, even criminal, for some general practitioners to assert, as one frequently hears them do, that any old lady who has raised a family of children can do more for a baby than any doctor; that children do not need any medicine, anyway that they are very difficult to treat, because, lacking intelligence in direct ratio to their youth, they can not give you any information as to their subjective symptoms, and if old enough to give information, it is likely to be faulty and misleading, and a lot more such fallacies and twaddle. I should be ashamed of my profession and doubt my own conscience were I to make such admission to anyone, and even if I felt that way it would be all the greater an incentive to study the ailments of early life all the more for feeling the want of proper information on this most interesting and valuable part of a medical man's knowledge.

If, as one of our older authors has said, "The child is father of the man," I hold it is equally true that pediatrics is the mother of general medicine.

Because a small boy has not achieved greatness or distinction, and he is only a street gamin, or perchance, even a child of unknown parents, it is not considered as much honor to treat him as it would be later on to treat this same person after he is the judge, the colonel or the general, the governor, or his excellency the president, some distinguished literateur, statesman, prince or potentate. It is no sign, nor does it logically follow, as the day follows night, that the study of pediatrics is less dignified, less distinguished, than that of general medicine.

The man who recently gave an example of his bloodless reduction of congenital hip dislocation is a pediatrist from the nature of his work and its limitations, and yet he received more notoriety from both the professional and lay press than any dozen or more of the other members of the medical specialties, either at home or abroad. He has shown us that there is an honorable and useful field open in this department, and I desire to remark, there is yet much unexplored territory that awaits others who will take the pains to investigate, and their labors will not go unrewarded, neither financially nor otherwise.

As I do not intend to go at this proposition polemically, I will say in the affirmative, that the study of pediatrics is worth all the attention it gets and far more.

This assertion almost covers the answer to the second question, "Does it get the attention it deserves?" So I will prefix my answer to my remarks on this part and say at once that it does not get the attention it deserves. In the first place, it does not get its proper attention in the medical college where it is claimed to be taught, but is not—or at least if so, only exceptionally.

In very few medical schools, either abroad or in our own country, do they have a special chair for teaching diseases of children, but it is usually taught by an associate or adjunct professor to the chair of internal medicine, and probably one lecture a week or every two weeks is devoted to it, and what is worse, not always is this chair filled by some distinguished man, but by one who is cutting his eye teeth preparatory to masticating the bigger chunks to be bitten off later. Frequently the student is given to understand, if not directly told, that the subject is of minor importance, and he would better give his special attention to pathology, bacteriology, obstetrics and gynecology, where his especial attention is directed to tubes, ovaries, hysterectomies, appendices and other glittering promises of surgical paraphernalia, fame, wealth, success, where, like military heroes, he can "wade through slaughter to a throne."

Of course, these are all necessary, but of how much use are they to the average tyro in practice? That comes later, after the baby has had a convulsion, or midnight croup, and thus introduced him to the favorable notice of the family.

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Diseases of Children, and approved for publication by the Executive Committee: Drs. H. M. McClanahan, A. C. Cotton and H. E. Tuley.

When I studied pediatrics I was taught it by my professor of chemistry, toxicology, materia medica, therapeutics, hygiene, state medicine, diseases of women and children. See? All one man, but he was versatile! Yet I am still at a loss, that of the many subjects he was professor of which of these he taught me most, but I am sure it was not pediatrics. If I know anything about that I learned it later. I learned much of it right here in this Section, from the papers I hear read and discussed (and which I reread later in THE JOURNAL), which were written by many of the distinguished authors who think it not beneath them to cast their lot with us. Now, while I am talking about its teaching in our medical colleges, I wish to assert my opinion, that aside from having special books on diseases of children, it were well to learn this matter by comparison. For instance, when a given disease is discussed in a treatise on internal medicine, its etiology, clinical history, pathology, anatomy, diagnosis, prognosis and treatment, it would be well to remark of its behavior in childhood, where it is similar or dissimilar from its manifestation in adults, and by these means much good were done to rivet the attention of the student to this important branch of medicine. Some authors do this in part, but most of them do it in a half-hearted way. I am sure if it were done as I fancy it should be done it would save much separate study, much book buying and reading over and over again in ponderous tomes and voluminous cyclopedias, which often reminds one of threshing over an old straw stack for the sake of a few grains of good wheat one might find. It were far more profitable to go to the flour bin at once.

Again, I want to draw your attention to an expression now principally used as an echo of the past, namely, the term "family physician." When you analyze this expression you will easily find it relates mostly to the man who treats the children of the family. While in general practice it often becomes necessary to call in some specialist, one who truly has made special study of a particular class of ailments, yet the family physician gets to see, diagnose and treat these cases first. Whether it be a mastoid trouble, a middle-ear disease, a sigmoid sinus thrombosis, a laryngeal croup, where intubation or tracheotomy must be done, an appendicitis that must be operated on, a fractured skull elevated or resected, or what not—no matter, the family physician sees most of them first, and he should be capable to diagnose and treat, or know fully when his work and knowledge need be supplemented by the proper special assistance; this in itself is no small accomplishment. When this state of things comes to pass, that is, when all medical men learn more of pediatrics and give it more of the attention it so richly deserves, then

> The air so full of farewells to the dying,
> And mourning for the dead;
> The heart of Rachel, for her children crying,
> Will not be comforted.

will find less application than of old.

After the loss of one of his children the poet Longfellow said:

> There is no flock, however well attended,
> But some dead lamb is there.

And yet I think if we knew more of the ailments of our little ones there would not be quite as many dead lambs, and angels would have to be recruited from older candidates.

And now, not only to the Section of Pediatrics, but unto all departments in medicine do I quote:

> Ah, what would the world be to us,
> If the children were no more?
> We should dread the desert behind us,
> Worse than the dark before.
> What the leaves are to the forests,
> With light and air for food,
> Ere their sweet and tender juices
> Have been hardened into wood,
> That unto us are children;
> Through them we feel the glow,
> Of a brighter and sunnier climate
> Than reaches the trunks below.

To you, my fellow workers in this section of God's vineyard is dedicated this sentiment: "The study of pediatrics is worth all the attention it gets, and it does not get all the attention it deserves." "Go ye into all the world and preach this gospel."

1007 Fifth Street.

DISCUSSION.

DR. W. F. BOGGESS, Louisville, Ky.—That pediatrics is a subject that has been woefully neglected in the past we will all acknowledge, and it is undoubtedly true that it is a subject which appeals to all of us in the medical schools. If I can teach two facts each year to my medical students I feel that my labor has not been in vain. One of these is, that the diseases of children constitute an individual study. We have just heard of the wonderful disturbances of nutrition in children, and the differences in the development of the nervous system of children and adults. The future men and women will depend on the health of the children, and if we do not take care of our children along the special lines we need not expect future generations to be healthy. The other fact is that the students are to be impressed with the utmost optimistic views in the treatment of diseases of childhood. We have the most occult diseases to deal with, and the most profound disturbances to recognize, with but little help from the patient. We have unknown quantity as to the resistance and recuperative power. We know, nevertheless, that by proper treatment we can often bring back the most discouraging cases to perfect health and hardihood. The schools, I think, are waking up to the fact that we should no longer turn over this very important subject to an assistant, and that the subject is worthy of a full professorship—indeed, should have several professorships, for it is one we can not teach too thoroughly.

A CASE OF PROBABLE GUMMATA OF THE LIVER IN A CHILD OF SIX.*

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PHILADELPHIA.

The case which I have the honor to report is that of a girl of 6, rather small and thin, but, according to her mother's account, always well except, temporarily, during attacks of measles and whooping cough. Her parents are both living, but are generally intoxicated; if only one be found, the other is probably "off on a spree." The father is a steady drinker and contracted syphilis about twenty years ago. Out of thirteen pregnancies, seven of which terminated by abortion, but two children are still living, a healthy man of 23 and this little girl. The others died between 3 and 10 years of age from various causes. No history of tuberculosis was obtainable.

The patient, who was not living with her mother, was first brought to the dispensary of the University Hospital, July 21, 1902. She had complained of pain in her right side two weeks before; this had been followed by slight fever, nausea, vomiting and jaundice. She was constipated and her passages

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Diseases of Children, and approved for publication by the Executive Committee: Drs. H. M. McClanahan, A. C. Cotton and H. E. Tuley.

were clay colored, but there was no pruritus. During the four days of fever, her highest temperature was 100 F. As she had failed to improve, she was brought to the dispensary, where examination showed a small, thin child, greatly jaundiced, the conjunctivæ deeply icteric, with prominent superficial veins of the chest and abdomen. The liver was freely palpable, reaching nearly 4 cm. below the margin of the ribs in the median line. There was at this time no tenderness or ascites. The spleen, while slightly enlarged to percussion, was barely palpable. Heart and respiration were normal. There were no traces of the keratitic, iritic, bony or cutaneous lesions of hereditary syphilis. Nor had she Hutchinson teeth, as the second teeth had not yet appeared.

While her symptoms suggested acute catarrhal jaundice, the history, in spite of the absence of any other characteristic physical signs of congenital syphilis, pointed so decidedly to a probable syphilitic condition that protoiodid of mercury (gr. 1/12) and sodium phosphate (3 j) were given four times a day. On this she began to improve, the bowels became regular, nausea and vomiting ceased, and there were no more fever and much less jaundice when she was seen again, July 28.

Some days later, though this treatment was continued, swelling of the abdomen was noted. This gradually increased for about ten days, when she was admitted to the hospital (August 14). The fact was then elicited that treatment had been stopped over a week before admission. Examination now showed a very prominent abdomen, making the extremities seem much emaciated in comparison. There was no doubt of the presence of ascites, movable dulness in the horizontal position reaching to a circular area around the umbilicus, about 4 inches in diameter. There was pain in the right side of the abdomen, with evident tenderness on both sides. Careful examination showed excessive tenderness over the liver, in the midclavicular line, about midway between the umbilical line and the margin of the ribs, extending nearly to the edge of the ribs. On account of the ascites, the liver was not plainly palpable, while attempts to feel it produced great pain. No visible apex beat was found, and cardiac dulness seemed smaller than normal, probably from upward displacement of all the viscera due to the ascites. A faint systolic murmur was audible, heard best just above the apex, with marked accentuation of the second sound near the aortic cartilage. The lungs appeared normal. There was no edema of the face or extremities, no pleural effusion, nor any suspicion of cyanosis.

The ascites gradually diminished on milk diet, gray powder and potassium iodid (āā gr. ij, three times daily), with Basham's mixture and sodium sulphate (āā 3 ij, daily). Examination two days later showed that the liver, now palpable, was still somewhat enlarged, though not so greatly as at the first examination, over three weeks before. Its lower margin was felt 3 cm. below the edge of the ribs, and a somewhat tender, nodular area was now distinctly palpable, about the size of an acorn, midway between the umbilical line and the margin of the ribs, in the right midclavicular line, continuous with the surface of the liver. The spleen was not palpable, though still slightly enlarged to percussion. Urine analysis showed traces of albumin, together with a marked indican reaction. From 16 to 32 ounces of urine were passed daily, and the improvement continued, jaundice and ascites rapidly diminishing. As these had both disappeared by August 24, all medication except the antisyphilitic treatment was stopped, and her diet was increased. The nodular mass in the liver was no longer so plainly palpable, and the liver had decidedly diminished in size. Two days later she was out of bed for the first time, and left the hospital in excellent condition September 3. Her liver seemed of normal size at this time, reaching almost 2 cm. below the margin of the ribs in the median line. She was given specific treatment, to be continued during one week each month. This was carried out until Christmas, 1902. Since that time she has had no treatment and has kept perfectly well.

From the course of the disease it seems that this affection of the liver, undoubtedly syphilitic in nature, should be grouped among the manifestations of late hereditary syphilis (syphilis tarda). The family history shows the presence of syphilis; and the fact that early signs of congenital syphilis were not noticed in the child can probably be explained by the lack of attention which she received on account of the usual intoxicated condition of one or both of her parents. Some characteristic symptoms were probably present in early childhood or infancy, though they passed unperceived. The excellent results on antisyphilitic medication tend to prove that this hepatic condition was syphilitic in nature.

But few such cases have been published. In fact, syphilitic hepatitis, while common in infantile congenital syphilis, is rather rare among the manifestations of late hereditary syphilis. Outside of the case reported by Dr. D. L. Edsall,[1] which, as his resident physician, it was my privilege to study, I have been unable to find more than one other case of gummata of the liver in late childhood in the literature of the past twenty years, that of Barth.[2] Very few comprehensive articles on the manifestations of late hereditary syphilis are to be found at all, and reports of cases are rarer still. Fournier[3] devoted an entire volume to them, while Barthélemy,[4] in 1884, was able to collect but 30 cases of late congenital syphilis occurring in patients ranging from 2 to 34 years of age, confirmed postmortem. In but 6 of these patients were gummata of the liver the only lesions found at autopsy, while in 13 there was marked interstitial hepatitis beside the gummata. Hudel's extensive monograph on syphilitic hepatitis, quoted by Holt,[5] was unfortunately unattainable. In 1890 he was able to collect only 47 cases of late syphilis of the liver, including those of Barthélemy.

Edsall's case occurred in a girl of 14, whose only signs of congenital syphilis were deafness, ozena and scars from an ancient keratitis. There were dyspepsia, headache, dyspnea, loss of flesh, edema of the face and extremities, anasarca, double pleural effusion, ascites and two large, hard, nodular palpable gummata of the liver. She was sent into St. Christopher's Hospital for Children with the diagnosis of sarcoma of the liver. Her spleen was also somewhat enlarged. There was albuminuria, but no fever at any time. On mercurial inunctions and potassium iodid the masses disappeared in two months, yet the liver remained hypertrophied and hard. A year after discharge from the hospital examination showed a completely normal liver. A somewhat similar case, in a girl of 15, has been reported by Barth, with postmortem confirmation. Delbet[6] reports an interesting case of gummata of the liver in a child of 2½ years, with ascites and slight jaundice, on whom laparotomy was performed for a supposed malignant growth. Recovery followed.

The pathology of the late hepatic manifestations of hereditary syphilis has been discussed by Barthélemy, Fournier and Hudelo. Barthélemy finds the form in which there are only gummata very rare, while that containing gummata with diffuse interstitial hepatitis is more frequent. Fournier[3] considers diffuse interstitial hepatitis the most common form of late hereditary syphilitic hepatitis, cases of which have been reported by Engel,[7] Depasse[8] and Créquy. Fournier states that gummata, when present, are, as a rule, only found at autopsy. Therefore, a hypertrophied liver, cured on antisyphilitic treatment, may have contained gummata which, perhaps, were situated where they could not be palpated. Thus it is more correct to consider both forms together, the gummatous and the diffuse interstitial hepatitis. Rarely the hepatitis may be amyloid.

Fournier considers jaundice an unusual symptom. Henoch[10] considers both icterus and ascites rare with syphilitic hepatitis. Beside the irregular enlargement of the liver, the spleen is usually somewhat enlarged, and albuminuria points to some renal involvement. Baginsky[9] reports the case of a boy of 4 with keratitis, followed later by swelling of the left lobe of the liver with ascites, slight icterus and hematemesis. In most textbooks the subject of hepatic affections in hereditary syphilis receives but scant attention. Osler,[11] Holt and Gerhardt[12] mention the occurrence of gummata of the liver in late hereditary syphilis; Comby[13] notes the occurrence of diffuse interstitial hepatitis with gummata, ascites and pain.

The diagnosis is not difficult when other characteristic signs of hereditary syphilis are present. Yet, as Edsall states, these cases are generally mistaken for malignant growths of the liver. Fournier believes that many cases of gummata of the liver escape attention because they usually run a symptomless course. Edsall also refers to the possibility of calling the condition leukemia or splenic anemia. Henoch, in his large experience, has never seen a case of late hereditary syphilis. He believes that many of the cases described by Barthélemy were simply chronic interstitial hepatitis from some other cause. This is evidently not the case, however, as the existence of this condition has been proved by pathologic examination. Engel calls attention to the predominance of the female sex among the few cases of late syphilis of the liver reported, in all less than 50, including the cases both of diffuse interstitial and gummatous hepatitis, as manifestations of late hereditary syphilis.

It is, of course, possible in this case that the syphilitic affection may have been acquired and not congenital. But the family history is so decidedly typical and the possibility of the early symptoms having passed unperceived so perfectly probable that it seems unnecessary to search for further explanation. The presence of the distinctly palpable node on the surface of the liver also excludes simple hypertrophic cirrhosis, for which, besides, there was no known cause. Though such cases are rare, they probably occur more frequently than is commonly supposed, passing unperceived or being mistaken for malignant growths of the liver. From the standpoint both of diagnosis and treatment these cases are most important, since, even though syphilis only be suspected, specific treatment deserves a trial and may effect a cure.

My thanks are due to Dr. J. P. Crozer Griffith for the privilege of reporting this case. The patient was under treatment on his service last summer during his absence from the city.

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DISCUSSION.

DR. R. B. GILBERT, Louisville, Ky.—Late syphilis of the liver is certainly very rare; I can only recall two cases in my experience, and these were rather recent. The first of these cases was very much like the one reported in the paper. It occurred in a girl of 5 years, and the ascites was enormous and proved most rebellious to treatment. After some hesitation I tapped the child and took away a little over one gallon of fluid. After this medicine seemed to have some effect, but the fluid accumulated again very rapidly, necessitating another tapping in about ten days. After this she improved steadily, and under mercury and iodid of potassium was restored to full health. The other case was a female infant of 18 months, with an abdomen so enormously distended that breathing was greatly impeded. I drew off from this child over one quart of fluid with great relief to the little one. This was only a few days ago, but I expect a good result. The paper has greatly interested me because several clinicians criticised me severely in connection with my first case, and advised against any radical or heroic treatment.

DR. C. F. WAHRER, Fort Madison, Iowa—I often wonder how much hereditary syphilis complicates many of the diseases of childhood or masquerades under the guise of some other disease. I have felt that when in doubt mercury or iodid of potassium, or both, should be given.

Some time ago I was called to a little girl of 4 years who was supposed to be in danger of dying. I examined the child and found a weakness of the heart, but none of the classical symptoms of any special variety of organic disease. The child had had none of the diseases usually causing disease of the heart, yet the heart muscle was weak and the innervation of the heart appeared to be disturbed. I privately inquired into the previous history of the patient, but obtained no information. I was subsequently called to see two other children in the same family who were similarly affected. Finally the mother came to me to be treated for syphilis, and then she told me that her husband had contracted syphilis some years before, and had been improperly treated. I then learned that two of her children had presented evidences of syphilis and had died very suddenly after birth. I accordingly put the whole family under treatment, and three years later the mother gave birth to a child, who now, at the age of 8 years, appears to be perfectly free from syphilitic taint. Since this medication the other children have had no more attacks of heart trouble.

IS THE REALIZATION OF REASONABLE IDEALS IN DENTAL EDUCATION NEAR AT HAND?*

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Reasonable ideals in dental education would seem to be defined by those standards as yet unattained and not yet in practical working, but which are admittedly possible and desirable in the estimation of the leading dental teachers, practitioners and examiners of this and foreign countries as expressed and promulgated by them personally and in the councils of the great national and international organizations. In no other country in the world is dentistry esteemed so truly a separate and distinct science and profession as in the United States of America.

Most of our schools are independent of and free from domination by the medical profession and medical schools, which is a condition not at all to be found in the schools of Europe, where our beloved profession is held as a mechanical art tacked onto a background of medical didactics.

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Stomatology, and approved for publication by the Executive Committee: Drs. M. L. Rhein, M. H. Fletcher and Wm. E. Walker.

Every enthusiastic lover of his profession probably has formed an ideal for himself, or for some one in whom he is interested, which should represent the summing up of his dream of educational perfection in dentistry, but the chief difficulty in the way of the general adoption of these ideals is, that they are as various as they are ideal. One man will urge that an academic degree is of main importance, preparatory to the study of dentistry at all, while another will insist that beyond the simplest of common school preparation the wisest educational prerequisite for dental college is found in a term of pupilage in the office of a successful practitioner where the study of text-books is a mere incident and the education is conducted on the principle carried out by the celebrated Mr. Squeers at Do-the-boys Hall, England, *i. e.*, teaching spelling as follows: "w-i-n win, d-e-r der, winder. Go and wash it."

And then there are all the intervening ideals that can be thought of, as wide in variation of detail and almost as numerous as the personnel composing the dental profession, and it will not be denied that there is fully as great a percentage of dreamers, cranks and would-be prophets and leaders among us as is to be found in any other calling. It is out of the multitude of counsel, based on actual experience and effort, that reasonable standards can be evolved. The educators and examiners have been each and all striving for wise standards, that will fill the educational ideals for some years to come, and also be practicable and attainable as a general fair minimum requirement by all educational institutions worthy the name. The dental literature for the past several years has overwhelmingly pointed to high school graduation and four years of special dental training as the minimum place where standards could be with safety set up and permanently established. The variations in standards for high school in different portions of our country are great. Indeed in some states having dental schools there is practically no established high school worthy the name. But like all other commodities schools accommodate their curriculum to the demand, and, at any rate, equivalents can be easily and fairly set up through the system of preliminary examination now in operation under the rules of the two national associations of faculties and examiners, so that the decision as to what is a reasonable requirement in high school graduation can be very easily attained. And even where there are elective high school courses to be had, it is but a matter of detail to elect and maintain a reasonable equivalent. The college course has been advanced for several years to three years for graduation, and the addition of the fourth year to the curriculum which is to be inaugurated in the present year in all our schools completes what may be properly denominated reasonable ideals in dental educational standards.

If all the schools composing the N. A. D. F. were departments of properly endowed universities, and thus relieved of the everlasting commercial handicap, there would be no question as to the immediate establishment of reasonable ideals. But the fact obtains that a large majority of them are practically struggling for existence and feel they can not be too particular in their standards.

Having fairly determined what should be demanded and established in standards the question arises, who shall establish and be responsible for the carrying out of these standards? The answer is, the colleges through their national associations and the examiners standing behind, protecting, insisting and encouraging by the official authority that is in them vested. This being accepted as the proper method, all obstacles that beset the path and intercept the attainment of the goal must be squarely faced, with the view to most directly overcome them or pass around them in the onward course. The men to be convinced and enlisted and the means, the employment of which will most likely and directly conduce to the ends sought, are important. What is the power that must be invoked?

For over forty years dental schools have been pursuing their steady growth in size of classes and in numbers without there having been set up a single fixed minimum educational requirement for beginning a school course that could be in any sense claimed to be an established prerequisite. The demand for skilled practitioners was so great during the period of phenomenal growth and development of this great country following the close of the Civil War that perhaps it was as well that this should have been so, but to-day the demand is not so much for mere artisans as for educated, scientific, professional—gentlemen, if you please—who shall be competent to take the helm and guide the destinies of a great profession that is more nearly an exact science than any other, except it be, perhaps, the law.

Attempts at the raising of requirements have been continuous, and the past five years have seen the establishment of two years' high school preparation, and the present year inaugurates the four year course. This advance up to date, in spite of the prediction of the pessimists and conservatists that putting up the bars would financially ruin the smaller schools, has been followed by an era of unprecedented prosperity to the schools, and when it has been honestly enforced the quality and character of the college output has been in the main materially improved.

The universities have been held back for years, hoping by slowly raising the educational requirements to enable the weaker schools to keep pace and so hold the national body together. It would seem that this has proved a mistaken policy, for the proceedings of the national association of colleges are filled with charges and trials, convictions and fines against school after school for the violation of the plain rules of the body as regards the receiving and giving standing to students taken into their classes, with no other earthly object apparent than to swell the income of the struggling institutions. This is, of course, human nature, but it is none the less scandalous, notorious and disreputable in the highest degree and should be branded with the condemnation of the profession at large.

A case in point of what is constantly going forward in the effort to swell classes at whatever risk (and the half of which is never brought to light) is that of an endowed university which was compelled to refuse admittance to its classes the present year to about thirty matriculants because they did not possess the prerequisite education for admission to the third year of high school, as required by the rules of the two national associations. These men applied elsewhere, and most of them, it is believed, are now enrolled in the classes of other schools belonging to the association.

Another instance is that where one school sought (and did in some degree succeed in its undertaking) to swell its own classes by sending out emissaries, cappers, or steerers, offering in wholesale lots to almost the entire classes of a competing school reduced tuition rates varying from $25 to $65 for the $115 advertised tuition fees.

Another instance of flagrant attempts on the part of schools in the full membership in the N. A. D. F. to

evade the rules is where one of them, by the admission of its dean, has taken into its freshman class for regular work a number of matriculants who had signally failed to pass the preliminary examination (set up by the national association as its minimum standard for admission to classes) before the duly accredited appointee of the state superintendent of public instruction, and then attempting to build up some sort of excuse for its conduct by not only attacking the educational fitness of the examiner, who, by the way, is the honored principal of a district school in a large and flourishing northern city, but also by attacking publicly his character as an honest man and public servant, and thus attempting to excuse itself for having these men in its classes at all, even under the name of "specials" and "in our preparatory classes, besides doing regular freshman work." And this school is evidently banking on being able to control enough "inflooence" in the national association to cover up or else explain away its conduct or, at the most, escape with a "fine," as though payment of money could in any sense atone for the violation of the law of common honesty.

There is also the lamentable spectacle of schools posing as the very "ideal" of everything desirable and whose official heads are shocked and hurt at the mere suggestion that any one should presume to criticise them or question their reputability, that are constantly and persistently flooding the secular press of the country with paid pictorial advertisements of their classes, football teams, handsome, noted and extra-skilled teachers and instructors, exploiting the peculiar advantages of the institution and its professors over all competitors, all done in a style to put to the blush the common advertisers of the cheap "dental parlors" type.

Such things unchallenged and unrebuked certainly do not tend to the realization of ideals and most certainly do not offer incentives to enter our profession to the class of young men our profession most lacks. This is the sort of thing which has always stood in the way of the proper establishment and maintenance of ideal standards. It would seem if we are to establish ideals for practical use that the public stamp of condemnation should be put on such practices and the guilty institutions incontinently thrown out of the national organization and made a public example of.

It is futile for this body, composed of the membership of the "reputable" colleges of this country, to adopt for the government and conduct of its members certain rules and standards and methods of procedure based on high ideals of ethics and mutual protection, to be accepted by the profession at large as a criticism of the schools' reputability, and then devote a large part of its annual sessions to inventing excuses and apologies for flagrant and open violation of the letter or spirit, or both, of these standards and rules, thus giving to the outside world the very reasonable impression that the body is dominated by anything but the real spirit of building up ideals that their rules and standards would indicate. It is high time that the college association awaken to the realities of the situation. There is at this time, as a result of years of struggle and contention between schools and the examiners for the establishment of specific standards, accepted by the schools and made by the boards their measure of reputability—there is now, I say, a period of mutual accord and trust and peace between these bodies which should be the harbinger of better things to come. The schools are assured of protection by the boards from any infringement and violation by competing schools, made and provided that the college association will purge itself of the violators and enforce its own rules without fear or favor.

In order that ideals may be sooner and more surely established and maintained the boards of examiners, with all fairness and reasonable consideration for the interests of honest educational efforts, must, nevertheless, be mindful of their official oath to carry out not only the letter but also the spirit and intent of the law for the protection of the public. They must, in national association, stand squarely together on reasonable requirements and, more than all else, have the courage of their convictions in passing on the character of the colleges and their output, constantly having in mind that the goddess Justice does not close one eye and blink the other when on duty.

If the schools will rise to the occasion and set the pace the examiners will most assuredly help and sustain them in holding it steadily up. If N. A. D. F. will not purge itself and be honest in enforcing its rules there will be but one way to move the profession forward, to-wit, the better and honest schools will naturally unite themselves together and the examiners must join them in a newer and higher emprise on a surer and, it is to be hoped, better laid foundation.

DISCUSSION.

DR. EUGENE S. TALBOT, Chicago—There is perhaps no one in the country so well posted on the management of dental colleges as the essayist. He is one of the foremost men who has been looking forward to the future of dentistry and has done a great deal in the way of legislation. He would have been here at this meeting but for the fact that the legislature is now in session and changes are being brought about in the state law in Wisconsin. He wished me to extend his thanks to the Association for its courtesy in having his paper read and regrets that he could not be present.

There is no doubt that there is a good deal of underhand work going on in some dental colleges. I know of three or four dental schools in which agents are sent out soliciting students. A percentage is paid these agents for procuring the students. There are many other glaring deficiencies in the methods of obtaining students. I was somewhat surprised that more was not said along these lines.

I understand it is the intention of the national board to bring this subject before their meeting for the purpose of discussion. I believe the time has arrived when the departments of dentistry connected with universities will have a large influence. Now that the universities have a method for the purpose of uniforming the education in all their departments and also for the purpose of raising the standard of qualification for admission to these different departments, the time is near at hand when the graduate of dentistry in this country will be on an equal standing with the graduates of other specialties.

DR. M. H. FLETCHER, Cincinnati—I do not know that I have much to say, except that I am interested in bringing about a higher standard of dental education. As a member of our State Board of Dental Examiners for five years, I have been greatly chagrined to know that our laws compel examiners to give such elementary questions. I would consider a first-course student in either dentistry or medicine below the standard if he could not pass such an examination. There is every reason, from my standpoint, for extreme effort in raising the standard, and no doubt such men as the essayist and those interested in bringing it about need the co-operation of all good men in this work. I sincerely trust that the day is not far distant when the standard of efficiency may be raised.

DR. M. L. RHEIN, New York—It goes without saying how much we are in sympathy with the elevation of the standard of qualifications for admission to a dental educational school. I feel personally that Dr. Chittenden made his paper a little weaker than he intended when he spoke of the smaller colleges being irretrievably hurt by the length of the course, because I feel very much on this subject as was expressed by Dr. Billings, the President of the Association, in his opening addres,

that the time has come when the smaller educational institutions must go out of existence. There is no use for them at the present time. I would even say that I think the idea of proprietary educational institutions is a mistake. I think this Section should come out flat-footed on the question of men enjoying a salaried position due entirely to the income of the institution with which they are connected. That has invariably been one of the worst features connected with proprietary dental education in this country. If the efforts to raise the standard of dental education is a blow at this sort of institution, it is a blow that is well merited and with which, personally, I am in full sympathy, because the sooner they are eradicated and destroyed so much the better for the interests of the country at large. How much better it would be if there were fewer institutions where there was a distinctive salaried position of an amount to enable the proper teacher to be selected irrespective of the necessity of earning their living by the practice of their profession. It is impossible at the present day for the real professor of any branch in a dental institution to be engaged in the active practice of his calling. His attention to practical dentistry should be confined to the infirmary division of the institution with which he is connected. That is the idea we have to look forward to in dental education. It makes little difference to my mind how much we raise the standard, if we fail to accomplish the real results.

There is just one little point of difference that I have with Dr. Chittenden in his paper, that is, the words of criticism that he makes at institutions of character for keeping themselves advertised, as he says, in the eye of the public, advertising their superiority over the smaller institutions. I hardly believe, if I could talk this matter over with Dr. Chittenden, that he would see this in the light in which he appears to, judging from his paper. To my mind, it is one of the forms that is necessary to use to drive out of existence the inferior institution. It is impracticable, in my view, to compare any one of our great institutions with an advertising dental parlor; so, I think, Dr. Chittenden has made rather an unfortunate mistake in a comparison of this kind. These large institutions are constantly before the eyes of the public in the public print. A very necessary form of the education of the young men today is the athletic surroundings of the university. There are differences of opinion regarding their value, but at the present time they have the sympathy and the accord of the American people. I myself believe that they play an important part in the welfare of our educational institutions. I believe they do good, and can do harm. Devotion of time to them to the neglect of studies is the same evil which besets every young man in all surroundings of life. A great deal of the advertising of departments of universities is of such a nature as is not directly sought for by these universities. It is worked up by the individual parties, and I personally see no harm in it. I believe this is a sort of competition which will bring out better features from the opposite institutions.

MR. T. CONSTANT, Scarborough, York, England—I have so little knowledge of the condition of education in this country that I am hardly in a position to speak on the subject. At the same time, speaking generally on the question of education, a subject to which I have given some attention, I think the most necessary thing in considering the educational conditions of any kind is to insist on a very high standing of preliminary education. The time that is necessary to give to the application of technical knowledge, when the mind is very receptive, as in the case of medicine and surgery, and especially in dentistry, is so largely devoted to the requirements of special knowledge that one's general knowledge is liable to be neglected. I think, therefore, that prior to examinations of special studies, one's general education should be as complete as possible. I feel that the fewer educational centers we can have the better. The facilities for travel now are such that distances are not the consideration they used to be, so that one great objection to having centers of education is removed. I therefore think that great harm is done, and I believe from my little knowledge, particularly so in this country, by multiplication of centers of education. On the same lines I believe myself in the uniform standard of examinations. I think if all the states of America united and had one national standard in examinations to which it became necessary for every student to present himself before being licensed to practice it would be a good thing. He could then succeed in taking the ordinary university degrees. License to practice, I believe, should be determined by national examining centers.

DR. W. E. WALKER, New Orleans—I believe the idea of the formation of great universities with dental departments is the correct one, and that the working out of the plan as it is being done in Harvard is really what it ought to come to; that there should be the unification of preliminary requirements for all the different departments instead of having one for medicine and another for dentistry, the basal studies being taken alike by all, and capped by the special work according to the field a man intends to make his life work, though the fingers should have some training throughout.

The question of preliminary requirements is a very difficult one to handle. Because it was found that when the dean examined the students he was so influenced, not only by his desire for the college to grow, but by the forces brought to bear on him by other teachers, that he would sometimes admit students that ought not to be admitted, it was thought to overcome that by the requirement that the dean should no longer examine students for entrance, but that the state or county superintendent of education should have the matter in hand. The law does not specify whether it shall be the superintendent of the county in which the school is located or in which the student resides. The result is that there is a different standard. We find many boys coming from the country where the standards are low and where the county superintendent will allow himself to be influenced by personal feeling and give him a certificate which he would not have received had he come to the educational center to be examined by the superintendent of the county in which the school is located, where the standard would be higher. I have an instance in mind in which a student was examined and refused by the examiner of the county in which the school was located and went home and was passed by the superintendent of the county in which the student resided. There must, therefore, be some changes in that direction. Just how it is to be done I do not know. A national body to examine all applicants would probably work most satisfactorily.

DR. CHITTENDEN*—The only comments I would make in discussion of this paper on educational ideals is as to the object and intent of the paper itself. As you are all aware, I have most excellent opportunities officially to gather correct information concerning what is going on in the dental colleges, some of which is open to criticism and condemnation. It was my desire, in this unofficial way, to acquaint the profession at large with the irregularities, quibbles and sharp practices that are being used and which the schools themselves appear to have the idea are unknown and never to be known by the public. It has seemed to me there has been enough posing and not enough plain honesty of purpose. The paper only hints at a lot of abuses which have, to those watching closely, become offensive, both in practice and frequency of occurrence. It is time the profession at large is fully informed of the situation and given an opportunity to speak out, demanding reformation. The keynote to the condition referred to is, of course, commercialism. There is no question that if honesty could be placed before money interest in the conduct of all the schools for a single year, and standards put where they reasonably belong, that the commercial side of dental education would take care of itself, and financial interests involved be greatly benefited, and it is a great wonder that the educators cannot or will not see this fact. The intent of the paper in detail was to throw some flashlights in silhouette that would bring a quick, sharp understanding of the situation into view, and nothing said in it has been engendered by or intended to convey any sense of bitterness or unfairness to the schools themselves. I have reason to believe the National Association of Dental Faculties will be given an opportunity this summer to squarely meet this situation, and I most devoutly hope and pray, for their own and dental education's sake as well, that they may meet it squarely in the spirit of true professional honesty and singleness of purpose.

* Dr. Chittenden not being present, his paper was read by Dr. W. E. Walker, New Orleans, and these closing remarks by the author have been furnished subsequent to the session.

THE ABUSES AND USES OF VENESECTION IN THE PRACTICE OF MEDICINE.*

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Though for centuries venesection was considered one of the most valuable methods to be employed in the cure of disease, it has now fallen entirely out of use.

The present generation of physicians, indeed, has seen so little of the practice of blood letting as a therapeutic agent that it is hard for them to realize how universally it was used even as late as the middle of the last century.

At the time the writer commenced the study of medicine (about fifty years ago) the favorite text-book used by medical students was Watson's "Practice of Medicine." It was indeed a charming book, and one that for beauty of style and literary diction could not be surpassed. It was, however, in some respects a most discouraging book. Watson would give the most vivid pictures of the symptoms and progress of diseases and yet when it came to their treatment all diseases were apparently treated in nearly the same way. His favorite method for the curing of nearly every inflammatory disease was practically limited to the administration of calomel or other mercurials and the free use of bleeding and blistering.

As I read this book I used to ask myself: Is it possible that our means of treating the physical ills of our patients are limited to the use of the above three methods, and its seemed to me that if such was the case then the practice of medicine was a delusion and a failure.

Fortunately, about this time (1853) I procured a copy of J. Hughes Bennett's great work on clinical medicine. I received from that book a light and illumination on my studies in the science of medicine that I never had before.

Bennett was a great clinical teacher and reasoner, and while he used bloodletting in a moderate degree, yet he combined with it the literal use of nourishing diet and stimulants. Like the immortal Graves, he was far ahead of his time. Graves was the man who at a time when all the physicians of his time were bleeding and starving their fever patients, dared to feed those liberally under his care. Dr. Graves asked that when he died they should carve on his tombstone, "Here lies the man who fed fevers."

The picture given by Le Sage in his immortal book, "Gil Blas," of the character of Dr. Sangrado probably aided largely in calling attention to the absurdity and harmfulness of the free blood letting, so much used by the physicians of that day.

In Gil Blas there is one exquisite piece of satire that we must quote. During a time of great sickness and mortality the notary is sent for to make the will of a sick man. He immediately asks the question, who is the attending physician? On being informed that it was Dr. Sangrado, he at once says they must hurry and lose no time, for if they do not there will be no opportunity to make the will.

Physicians seemed in that day to regard the inflammations of an organ as a monster that had taken possession of the part and that could be destroyed by the abstraction of blood from the veins or by blistering and the administration of mercurials.

The more accurate knowledge of our day (though still incomplete) has shown us that most, if not all, of the phenomena manifested in the course of the acute inflammations are due to the efforts of the organism to defend itself from the inroads of micro-organisms or the toxins produced by them. We know now, also, that no inflammatory disease can be suddenly cut short by any method of treatment. What we can do, however, is to guide it to a favorable termination.

Admitting, therefore, the utter failure of venesection as a means of cutting short or of curing acute inflammations, the question then arises, were our ancestors in the practice of medicine entirely mistaken in their practice of this now forgotten remedial agent? We should remember that this method of practice was employed by many of the brightest lights of our profession. The physicians of former times were just as acute observers of diseases as those who practice medicine now.

Have we then not lost something of value to our science in our entire abandonment of the practice of venesection? Are there not cases even now that would be benefited by blood letting, and have we not gone from one extreme to another in utterly abjuring it?

Arthur Helps, the great English essayist, says that when a man attempts to avoid error on one side he is very apt to fall into the opposite error. The pendulum of truth is apt to vibrate from the error on this to that of the opposing side.

There are now a considerable number of the members of our profession who believe that while the idea of cutting short an acute inflammation by blood letting is an absurdity, yet in certain diseases venesection is a valuable therapeutic measure, and in some cases is absolutely necessary to preserve the life of the patient.

VENESECTION IN CEREBRAL ENGORGEMENT.

The class of cases benefited by the abstraction of blood are chiefly those in which there is an abnormal blood pressure in the body which endangers the rupture of a blood vessel in the brain or causes a stasis of blood in some vital organ. Let me give an illustrative case:

Mrs. G., aged 56, was placed under my care a few months ago, for the following symptoms: First, a feeling of numbness of the right side of body, involving both upper and lower right extremities, persistent headache, more marked on left side; the headache increased in severity; then she felt very giddy on attempting to walk; her speech then became affected and articulation imperfect. On examining her, I found her to be a stout plethoric woman who had always enjoyed good health, and weighing about 170 or 180 pounds.

She had always been accustomed to living on a farm, and had usually been working a good deal in the open air. For about a year before I saw her, she had changed her occupation to indoor work. She was in fact during that period employed in taking care of an invalid lady and had remained a great deal indoors, very rarely leaving the house. She generally had enjoyed her food and had usually eaten a liberal supply of meat and nourishing food, and no doubt had partaken of more nutriment than her system needed.

Here was a plain case of threatened cerebral apoplexy, and she became very much alarmed (and with reason) as to her condition. Here was a woman past the menopause and having not the relief that menstruation might have given to the overfilled blood vessels, a woman suffering from a hyperemia with threatened fatal results on account of the degeneration of the cerebral blood vessels which to a greater or lesser degree must be expected at her age. Now would any physician hesitate to bleed in such a case as the above? The proper treatment in such a case is to bleed freely from the arm,

* Read before the Medical Society of the District of Columbia, Feb. 26, 1903.

twelve or sixteen ounces of blood, and follow this by brisk purging with saline purgatives and low diet. Such a case can be brought (as was this one) from the jaws of death by the proper treatment such as outlined above.

BLOOD LETTING IN PNEUMONIA.

Another disease in which bleeding is sometimes necessary to prevent death is acute or croupous pneumonia. In its great fatality in our day acute pneumonia is a standing disgrace to the practice of medicine.

There can be no question that acute croupous pneumonia is worse treated and the percentage of mortality from it greater than it was thirty or forty years ago. This is admitted by all modern writers on the subject, and it will only be necessary here to give a few references to prove the above statement.

The nestor of American medicine, Dr. N. S. Davis,[1] says "the mortality in pneumonia has increased during the past forty-five years." The *Philadelphia Medical News* (March 6, 1897) says mortality from pneumonia has increased during the past fifty years. In New York City out of the 41,000 deaths occurring in 1896 5,383, or nearly one-eighth, died of pneumonia. The mortality from pneumonia in New York City hospital during the period beginning 1834 and ending 1843 was 25.4 per cent., during 1844 to 1853 25.7 per cent., 1854 to 1863 23.8 per cent., 1864 to 1870 27.7 per cent., 1877 to 1886 38.8 per cent., 1887 to 1895 34.7 per cent.

Dr. Putnam[2] of Boston says pneumonia mortality has increased 50 per cent. during the past thirty years. *American Medicine* (May 18, 1901, p. 277) says pneumonia is more fatal than tuberculosis. In New York City, from 1890 to 1900 there were 56,092 deaths from pneumonia and 50,490 during the same period from tuberculosis. In Chicago during the same period there were 25,228 deaths from pneumonia and 22,957 deaths from tuberculosis. The following extract is taken from THE JOURNAL of the American Medical Association (Jan. 24, 1903):

THE INCREASING PNEUMONIA MORTALITY.

Nearly three years ago we called attention to the fact that statistics showed that pneumonia was causing more deaths than tuberculosis. We believe that we were the first to call attention to this fact, but it is becoming generally recognized.

The circular issued by the Health Department of Chicago for the week ending Jan. 17, 1903, begins with the statement: "Since the census year 1900 pneumonia has claimed more than one-eighth of all the victims of the Grisly Reaper in Chicago; one-third more than consumption, and 46 per cent. more than all other contagious and infectious diseases combined, including diphtheria, erysipelas, influenza, measles, puerperal fever, scarlet fever, smallpox, typhoid fever and whooping cough, the total of which deaths was 4,489 as compared with a total of 6,562 deaths from pneumonia." This statement is a striking one and certainly confirms our earlier assertions as to the predominance of pneumonia over other infectious diseases as a cause of mortality.

American Medicine (Jan. 31, 1903) says, concerning the mortality in Chicago, that during the first 17 days of January, 1903, more than one-fifth of all deaths was due to pneumonia. The deaths from tuberculosis in Chicago in 1860 were 25.28 pere 10,000 (276 deaths in 109,206 population). In 1900 they were 15.30 per 10,000 (2,599 deaths in 1,698,575 population), a decrease of nearly 40 per cent. (39.1) of tuberculosis mortality in the 40 years. From pneumonia the 48 deaths in 1860 represent a rate of 4.40 per 10,000 of the population; in 1900 the 3,389 deaths represent a rate of 19.95 per 10,000, an increase of more than 350 per cent. (353.4) of pneumonia mortality. The whole country shows a decrease of 20.7 per cent. of deaths from tuberculosis and an increase of 7.4 per cent. of deaths from pneumonia during the forty years.

What is the cause of this increase of mortality among the patients suffering from pneumonia in our time? Probably one important factor in the increased fatality in the cases of pneumonia occurring in large cities is the class of patients who are treated in city hospitals.

Many of these patients are hard drinkers, and the mortality among such persons is always very large. Another factor that has been dwelt on and has undoubtedly swelled the average of mortality has been the advent of acute epidemic influenza (commonly called la grippe). Many other causes might be adduced to explain the failure of our art in curing this disease, and the interesting query comes up whether our change of treatment and abandonment of blood letting has not been a factor in producing this discouraging result.

Let me describe a class of cases of acute pneumonia in which blood letting is not only advisable, but absolutely necessary to save the life of your patient. We will suppose, for instance, the case of a young man in vigorous health, a hearty eater, full blooded and one who perhaps, while not an habitual drinker, yet loves the good things of this life, not wisely, but too well. Such a young man is attacked with acute pneumonia, and in three, four, five or six days perhaps, you will see crape on his door, and are shocked to hear that he is dead. What is the cause of such a young man's death? In the process of inflammation which occurs, perhaps one-third, one-half or even two-thirds of the lung tissue of your patient is filled up with a glutinous lymph which plugs up every air vesicle and thus preventing almost entirely the access of air in all the smaller bronchi. You cut into such a lung in the postmortem room and you find it solid. You drop it into water and it sinks like a piece of liver or other solid organ. Now what is the condition of that man's circulation? The heart, which perhaps beats normally at 65 or 70 is now beating 100, 110, or even 120, 140 or 150 per minute.

Your patient's face and lips are perhaps cyanosed, his respirations are 30, 40 or even 50 per minute. He lies quiet and says but little, for his breath is too precious to be wasted in words, but with imploring eyes he looks to you for help. In such a case bleed such a patient at once and you will probably save his life. What harm can you possibly do to such a patient by bleeding him? The loss of blood is nothing to him, he has too much of that in his body now for his present needs. In other words, here is an inflamed lung the aerating surface of which is diminished to one-half or one-third, or even one-fourth of its normal capacity. At the same time the heart is pumping the blood with greater force and frequency than in health into the semi-solid lung. How does this patient die? Simply because there is not sufficient oxygen brought to the lung to properly purify the impure venous blood and convert it into the life-giving arterial blood. The heart works harder and harder to perform the impossible task assigned to it, but finally gradually fails in power, and death speedily ensues.

Take in a case like this a pint or a pint and a half of blood from the arm and you accomplish two things, first you take away the surplus blood which is overfilling and engorging the blood vessels of the lung, and secondly you diminish the force and frequency of the heart's action, which is sending to the inflamed lung far more venous blood than it can purify.

1. THE JOURNAL A. M. A., June 6, 1896, p. 1113.
2. Charlotte N. C. Medical Journal, September, 1898, p. 299.

The objection may be made that your patient may be unable to spare such a large quntity of blood from the drain thereby made on his vitality; if so the remedy is easy. At the same time that you bleed him, or immediately thereafter, inject by hypodermoclysis under the skin of the thorax or abdomen just the same quantity of normal salt solution (1 to 1,000) as you took from your patient by bleeding.

BLEEDING IN PUERPERAL ECLAMPSIA.

The indisputable facts that puerperal eclampsia occurs most frequently in primipara and in young women in the prime of life would seem to indicate clearly that it must be caused by a toxemia resulting from deficient metabolism and the retention of effete and waste products in the body. What is the cause of this toxemia? How can it be remedied? We are strongly convinced that the cause is a very simple and obvious one, and that this disease is due to the nonassimilation of the large amount of meat and other nitrogenous foods consumed by the majority of pregnant women. After the initial stage of suffering from nausea and vomiting has passed to which many women are subject during the early months of pregnancy, the appetite is apt to become abnormally keen. Patients are encouraged to gratify this abnormal appetite by their friends, and even if the appetite should fail they are urged to eat largely, it being a popular superstition that it is necessary for them to do so in order to nourish properly themselves and their unborn offspring. Another most reprehensible practice is the prescribing by physicians of alcoholic drinks of various kinds at meal times for the purpose of stimulating the flagging appetites of pregnant women. Harm is done by this practice in two ways, first, by stimulating the appetites of these patients, inducing them to partake of more food than they require, and secondly, alcoholic drinks (beer, wine, etc.) diminish the metabolism and encourage the retention of effete matters in the body.

Two other factors entering into the causation of this disease are the neglect to take sufficient exercise in the open air and neglect to keep the skin in healthy condition by frequent bathing and brisk friction.

If the foregoing views are correct and the chief causes of puerperal eclampsia are improper diet and hygiene, the question arises, how can this disease be prevented?

It is my firm conviction, based on 47 years of continuous practice, that many of these cases can be prevented, and, of course, preventive treatment is far more important and more successful than the remedial. The following case is an illustration of preventive treatment:

Mrs. M. R., aged 22, is of healthy physique, and had always had execellent health. She engaged me Dec. 10, 1901, to attend her in her first confinement. She was at this time eight months pregnant. She was to go to Columbia Hospital for Women, which she entered Dec. 31, 1901. She complained of severe and continuous headaches, with sparks of fire before her eyes and some vertigo. Her urine was examined and showed the presence of albumin and tube-casts and a great deficiency in the amount of urea; it averaged only three to four grains per fluid ounce. She was immediately placed upon a rigorous diet, and not allowed to take more than one-third her usual allowance of food. Meat and stimulants were absolutely interdicted, and she was given thin soups and a small amount of milk and farinaceous food. For medication she was given broken doses of calomel, followed by mild saline cathartics so as to secure two or three loose movements of the bowels per day. She was also given a mixture of citrate of potash with a small proportion of potassium bromid. Under this treatment she gradually improved and the amount of urea excreted gradually increased, though it never came up to the normal amount. She was watched carefully, and, greatly to my relief, symptoms of labor set in Jan. 10, 1902. Her confinement and her convalescence were normal and uneventful.

The above preventive treatment, however, has a much wider field in the earlier months of uterogestation. The urine of every pregnant woman should be systematically examined at least once a month until the end of the term.

If albumin is found in the urine (especially if accompanied by deficient excretion of urea) it shows that the elimination of waste material is abnormally lessened; purgatives and diuretics should be given. Hydrotherapy with diminution of or total abstinence from nitrogenous food and alcohol, are also powerful adjuncts in the treatment of these patients.

But there may not be any opportunity for preventive treatment, for the patient may be already in a state of coma or in the throes of puerperal convulsions when we first see her. This is an emergency that will tax to the utmost the skill and self-reliance of the most accomplished physician. What shall we do? Shall we proceed to empty the uterus, bleed, give inhalations of chloroform or use morphia? In regard to the first treatment mentioned all authorities practically agree that if the convulsions develop during the labor, at full term, delivery should be accomplished either by version, the application of the forceps or other means as rapidly as possible. This rapid delivery of the child will very often arrest the convulsions, or if it does not do so entirely, will so mitigate them as to render the case comparatively easy of treatment.

This is not invariably the case, however, for one of the severest cases of puerperal eclampsia ever met in my experience was one in which the convulsions began after the labor had terminated satisfactorily. The labor had not been unusually severe for a primipara, but there was a smaller flow of blood from the uterus during and after the labor than is usual. The patient was a vigorous healthy woman, plethoric and with full tense pulse. The convulsions continued for 24 hours subsequent to the termination of labor, in spite of the free use of inhalations of chloroform, and the administration of chloral and morphia combined with bromids. The attending physician and myself, becoming almost desperate, finally determined to bleed her. By the dim light of a candle we bled her from the arm to the amount of 20 ounces, and there was almost instantaneous relief. The convulsions stopped at once and she made an uneventful recovery. We felt satisfied from the full and hard character of her pulse that the convulsions were continued by the blood pressure on the cerebral centers, and the result seemed to confirm this view of the case.

No one at the present day would wish to revive the old Sangrado system of indiscriminate bleeding for every disease, but it is the firm conviction of many physicians, of whom I am one, that we have been too hasty in abandoning the use of blood letting. The field of usefulness of bleeding, however, is very limited, and it is only in such cases as the one just described that we would recommend it.

That Annual Bath.—To illustrate the rôle that personal uncleanliness plays in disease among the lower classes, *American Medicine* tells the story of a mother who sought the aid of a physician for her sick child. A physical examination being necessary, the physician attempted to remove some of the child's clothing, but became lost and asked the mother to undress the child. She replied, "Aber, mein Gott, I have sewed it in for de Vinter."

A DIAGNOSTIC EXAMINATION OF ONE HUNDRED AND FIFTY CASES OF LEPROSY.

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HONOLULU.

Leprosy is a disease to which the average American physician gives but little thought or study; he is accustomed to regard it as a foreign malady, of interest to him only as a curiosity. This is a mistake; leprosy has existed for many years in various parts of the United States, but the only recognition it has thus far received has for the most part been by dermatologists in the centers of population.

The ordinary general practitioner, "the backbone of the profession," and to whom this paper is presented, is the man on whom rests the responsibility of keeping in mind the general features of the disease, and the possibility of some day encountering a case when least expected, as it is essentially a constitutional disease as much as is tuberculosis, and comes as fairly within his own domain.

With us in Hawaii the disease is on the decline; thus proving the wisdom of the policy of segregation established over thirty years ago. Our method of apprehending and dealing with leper suspects may be stated briefly as follows: The entire inhabited portion of the territory is divided into twenty-six government districts, in each of which a competent resident practitioner is selected and appointed by the Territorial Board of Health as government physician, with a small annual salary. In conjunction with his private practice he is to treat the indigent sick free of charge, supervise sanitation and vital statistics, return monthly reports on health conditions in his district, etc., and last, but not least, he is to be on the constant, vigilant outlook for lepers. In this latter duty there is placed at his disposal the active co-operation of the district deputy sheriff, who in many instances is the one who discovers the suspect and brings him to the attention of the physician. From these two officials, whose powers and duties in the matter are not optional, but mandatory, come most of the recruits for Molokai. A few of the patients, hidden away for years by friends, are already well advanced in the disease, but very many and perhaps the majority would "pass in a crowd" unnoticed. These are the ones whom the government physician has held under suspicion and silent observation perhaps for months, or even years, to study the progress and development of some slight and uncertain lesion regarded as of no importance by the patient himself, or perhaps by him entirely undiscovered.

Arriving at Honolulu, the suspect is placed in the leper receiving station, an enclosure of several acres containing cottages, wards, dispensary, etc., and situated in a quiet suburb some three or four miles from the business center of the city. He now passes under the care of the pathologist of the Territorial Board of Health, whose duty it is to supplement the work already begun by the government physician, in formulating the history of the case, making a critical study of all symptoms, recording the *status præsens* and demonstrating if possible the presence of the bacillus lepræ. After the arrivals have amounted to about twenty, the official examining board is called together in session at the station to make a final individual review of each case and pass on its disposition.

The following observations are based on an examination of a series of one hundred and fifty cases, mostly native Hawaiians, collected within the past two years and sent to Molokai; the diagnosis in each and every case having been either made or confirmed by a bacteriologic demonstration.

As a means of diagnosis first in importance stands the microscope. Although not regularly and scientifically demonstrated, on account of the universal failure both to obtain a pure culture and to infect any lower animal, yet it is now generally accepted the world over, that the disease is due to the Hansen bacillus, precisely as tuberculosis is due to its own specific germ. The discovery of the *Bacillus lepræ* in suspicious tissue is now considered just as legitimate diagnosis of leprosy as is that of the tubercular bacillus in the sputum of a suspected consumptive, confirmatory of tuberculosis.

The method employed is essentially that of my fellow townsman, Dr. L. F. Alvarez, described by him before the Berlin Leper Congress in 1897. A minute test snip of the suspected tissue is thoroughly triturated in a small mortar with a few drops of normal salt solution; a drop or two of this is placed on a cover glass, dried, fixed and stained with Ziehl's carbol fuchsin in precisely the same manner as with tubercular sputum, bearing in mind the single fact that the *B. lepræ* both takes and gives up its stain more readily than the *B. tuberculosis*, hence, in decolorizing, a very weak acid must be employed. Finally, contrast stain, mount and examine with a one-twelfth oil immersion and a good light. Slides thus made from snips of typical nodules usually show the bacilli in incredible numbers, or rather quantities, as I have frequently observed more than half the field occupied by the bright red aggregations of cell masses, great irregular blotches of solid bacilli in myriads, with small groups and individual elements intervening.

But, as has already been intimated, not all of the cases coming to the station show typical nodules. The majority present, it is true, in greater or less degree, one or more of the symptoms enumerated below, but frequently of so slight a nature as to render a positive diagnosis impossible without the aid of the microscope. In these cases we have to select our test snip from some locality on a given subject where experience has taught us we shall be most likely to find the bacillus. It may be that the best we have is an area no larger than a dime on arm, neck, back or thigh, which shows only a loss of pigment so faint as to be seen only in a favorable light. Slides made from here show a sorry contrast to the ones mentioned above which present a demonstration at first glance. We now anticipate a long and tedious search. With the mechanical stage we go back and forth, to and fro, by the half hour. Not that a leucodermic spot or two is of such grave import, as it is not; but the patient has also, it may be, an open sore on the bottom of his foot which he gravely tells you is from a cut on a sharp shell received a month or two ago while fishing, or there may be a slight atrophy in the palm of one hand; he is under suspicion. This impels one to presevere, when, perchance, one lonely red rod comes into the field; later two side by side; another long search and another single individual; and finally perhaps a group of from twenty to fifty; the diagnosis is no longer in doubt.

Writers of leprosy literature tell us that open ulcers and their discharges are teeming with bacilli; in this I have been greatly disappointed. Take, for instance, the common plantar pedis ulcer perhaps as large as a half

dollar and a half a centimeter in depth. I have so many times obtained negative results in smears from discharges or scrapings from its base that I have well-nigh abandoned their bacteriologic consideration. Another disappointment has been the mucus from the cartilaginous portion of the nasal septum. Even so high an authority as Koch has declared that the bacillus is to be found here early and constantly. After many faithful trials in every stage of the disease I have found them so seldom that I now attach but little importance to it as a means of diagnosis.

While the microscope is thus first in importance, it is in practice the last agent to be employed; it is only after all the various symptoms have been canvassed that an appeal to it is made as a court of last resort. What are the chief clinical features whose existence place the subject under suspicion? An attempt will now be made to present the more important ones in the order of frequency as we have found them in our series of cases.

The ancient division of leprosy into tubercular and anesthetic is unfortunate, as to terminology at least. The former, although used, of course, in its dermatologic sense, has long since been wholly appropriated by another entirely distinct disease, and its use in connection with leprosy ought to be abandoned. The latter term also is inapt, as in many well-marked cases of its type anesthesia is not a predominating symptom. There is but one leprosy; it shows in its manifestations a predilection for the skin and the nerves; that is all there is to the "three types, viz., tubercular, anesthetic and mixed" of authors.

First, then, in point of frequency, comes the symptom or rather group of symptoms which, for convenience, we class as maculæ, occurring in 89 per cent. of all our cases. Of these by far the most common are the leucodermic spots or areas which occur in all sizes and in all regions. They seem absolutely healthy to touch and feel; no elevation, no thickening, no inflammation; they seem to have lost a little of their pigment and that is all, unless, as rarely happens, they may be somewhat anesthetic. The patient, as a rule, knows but little of their origin or length of existence. A recent willing patient, an intelligent Hawaiian woman, a leper, anxious to go to Molokai to join her husband and her brother, detailed to me the symptoms of an erythema which occurred some four years ago with chilliness, slight fever and malaise; after these transitory symptoms had passed, the areas occupied by the redness, gradually and permanently lost a little of their pigment. It seems quite probable that such is the usual origin of the leucodermic spot. Taken in connection with other symptoms these spots and areas constitute a strong presumptive and confirmatory sign; taken alone, however, they are of very much less significance.

To the other and rarer lesions grouped as maculæ even less importance is to be attached. They all belong to the array of indefinite "might-be's" daily encountered in every skin clinic, suggesting syphilis, eczema or other ordinary dermatoses and not exclusively characteristic of leprosy. Repeated test snips with negative results have convinced me that, as a diagnostic sign, they are of much less value than is the leucodermic spot.

Next in frequency come the so-called tubercular lesions, the pathognomonic sign of skin leprosy. Under this head we group all patients who show the least trace of the true leprous nodule however slight, and our records show that it was found in 111 cases, or 74 per cent. In many of these it was so slight as to readily escape notice without careful search.

The histologic character of the lepra nodule in and beneath the skin is very suggestive of granulation tissue; in fact, Virchow coined a term, granuloma, to express it; the growth consists of proliferated connective tissue cells and leucocytes, with fibrous intercellular formations and newly formed capillary blood vessels. Ordinarily the nodule varies in size from that of a half pea to half a walnut, but it may be as small as a pin's head, or, on the other hand, of several inches in extent; it is irregularly circular or oval in shape, quite definitely circumscribed, with a well-rounded elevation, not particularly hard or resistant to feel, and in the lighter-skinned races with a tendency to brownish or coppery pigmentation. Its favorite region is the face, with a strong attraction for the lobule of the ear. I can not confirm the statement of authors who mention the elbows as a usual site: I have rarely found nodules in that region. Next to the face, the trunk may show them; less often the limbs. Instead of the nodule there is frequently found, as in the cheeks, for instance, quite an area of subcutaneous thickening, with perhaps slight elevation, the skin smooth, rather hard and firm to the touch, as though there were just beneath it a layer of thin leather. This is believed to be of the same nature as the typical nodule, differing from it only in manner of disposition. The facial disfigurements with the classic leonine expression pictured in the books as typical leprosy are nowadays seldom seen at the receiving station, but are more common at Molokai.

Another symptom of value is the falling of the eyebrows and lashes. Including all patients in which it appeared in any degree the records show 94 cases, or 63 per cent. While many of these presented but a thinning of the eyebrows in the outer half, those recorded as "entirely gone" and "nearly gone" number 31. It seems to be an idiosyncrasy of the disease, occurring without any appreciable change in the skin from which the hairs fall. In this connection it may be remarked that the disease has an apparent aversion to the hairy scalp, as I have not seen a single case thus affected.

We now come to an important group of symptoms more directly indicative of trophoneurotic leprosy as seen in atrophy of the palm and forearm with resultant retraction of the first row of phalanges, combined with contraction of the remaining phalanges, constituting the well-named "leper claw." Like all other symptoms, this one exists in every degree of severity. It may be so slight that the patient himself has not noticed that one palm is thinner than the other; or, in another case, while he is unable to entirely straighten two or three of his fingers, he has not observed that the forearm is somewhat smaller than its fellow of the other side. This group of symptoms constitutes 32 per cent. of all cases. Its usual manifestation, fortunately, is on one side only, but it is not rare to see both hands affected and to a marked degree, reducing the patient to the pitiable condition of almost total helplessness. In all these cases the ulnar nerve above the inner condyle will be felt enlarged and firm as a cord under the examining finger.

Next in order stands the plantar ulcer with a record of 26 per cent. Of variable size and depth, usually single, but sometimes multiple, it occurs most frequently on the ball of the foot, but also on the heel, and I have found it even on the bottom of a toe. As a clinical symptom it must be regarded as of great diagnostic value, as the lesion is very distinctive in its fully developed state and would hardly be produced in any other way. It might be of interest, in passing, to

state that with the enforced rest, the generous diet and local treatment, many of them entirely heal in a few weeks' stay at the station.

The text-books have brought into undue prominence the spontaneous amputation of fingers and toes from absorption of phalanges. It is not so common as is generally believed. We have grouped all cases which have shown even a tendency to this condition, as in the slight shortening of a phalanx, together with the very few in whom we have found parts of fingers or toes entirely gone, and our records show that these cases amount to only 16 per cent. of all patients. I recall but one case in which we found a tolerably healthy looking toe hanging by a short fibrous pedicle, about three millimeters in diameter. Hence, while the symptom is a very characteristic and valuable one, it is not very common.

Occurring with the same frequency as the above, in 16 per cent. of all cases, is a condition of the hands and sometimes of the feet, recalling an old classic name of leprosy, *elephantiasis Græcorum*. Instead of atrophies and contractions, we now find the wrists, hands and fingers more or less enlarged, rather soft and flabby, with the skin smooth and always of a dusky purplish tint. Except the color, it suggests at first glance a well-marked edema, but lacks, on palpation, the tense or boggy feel of that condition. Another interesting point is that the fingers invariably gradually taper toward their ends, so that about the nails their size is entirely normal. Test snips from several of these enlarged hands and feet have failed to show the bacillus.

Another symptom of trophoneurotic leprosy is facial paralysis, which we found in 11 per cent. of our series, in nearly all of which the side of the face was entirely motionless and expressionless with the orbicularis palpebrarum greatly deficient in function.

Finally, as to the universally recognized symptom of anesthesia. I have frequently found large anesthetic areas of skin to all outward appearance entirely normal; while, on the other hand, I have as often found areas which we would suppose should be anesthetic, with sensibility unimpaired. With us its determination is attended with difficulties and uncertainties. Nearly all our cases are unwilling, unsympathetic patients. Many are overcome by fear and are as profoundly startled by the touch of the head of a pin as by a prick of its point, while the answers "Ae" and "Aole" (yes and no) are given with utter lack of thought, care or discrimination. It is certainly one of the most valuable symptoms, and is probably as frequent a one as authors have claimed it to be. Our own statistics on this point are so meager and worthless as to preclude mention.

These few objective symptoms, while by no means complete, comprise the leading characteristics of leprosy, constituting an efficient aid to its recognition. The more so in that in every leprous case we have a combination of two or more symptoms, and often as many as five or six of them illustrated on the same patient. Thus, we might have leucodermic macules here and there on the trunk, the eyebrows thinned, a palm slightly shrunken, an enlarged and tender ulnar nerve, anesthetic areas, and a shortened toe all in the same patient, who would even then not only fail to attract the attention of his associates, but might consider himself in very good health.

A brief summary of the above may be deduced as follows:

1. The microscope is the supreme agent of the final diagnosis of leprosy. No patient should be committed to a segregated colony without a bacteriologic demonstration of the disease.

2. Of clinical symptoms, maculæ, chiefly leucodermic spots are found in 89 per cent. of all cases.

3. The lepra nodule found in 74 per cent. is the one chief distinguishing lesion of skin leprosy.

4. Thinning or complete loss of eyebrows and lashes is present in 63 per cent.

5. Atrophic changes in hands and forearms with retraction and contraction of fingers and enlarged ulnar nerve in 32 per cent., a leading feature of nerve leprosy.

6. The plantar ulcer found in 26 per cent., usually on the ball of the foot.

7. Absorption of phalanges in 16 per cent., with occasional spontaneous amputation.

8. Elephantiasis of hands and feet in 16 per cent.

9. Facial paralysis in 11 per cent.

10. The entire body should be carefully tested for anesthetic areas.

11. Several of the above symptoms can be found in some slight degree at least in every leprous subject.

THE CHEMISTRY OF CEREBROSPINAL FLUIDS.

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During the last few years I have examined a number of cerebrospinal fluids from lumbar punctures. The analyses are of some interest, as they throw light on such disputed questions as the molecular concentration and the nature of the proteids. In other respects they may serve to enlarge somewhat the already existing knowledge of this fluid. The specimens were usually not analyzed until a day or two after they were drawn, but they were received and preserved in sterile flasks, kept very cold. The first four cases were furnished by Dr. C. J. Aldrich, from patients with febrile temperatures. The last fluid was given me by Dr. C. E. Briggs. I wish to take this opportunity of thanking these gentlemen for the material.

SUMMARY OF ANALYSES.

The results of the analyses are briefly as follows:

APPEARANCE.—Fluids I to IV, are perfectly clear and colorless, III containing a very small sediment; V (from a case of spina-bifida) is slightly pinkish from suspended blood, the corpuscles having a perfect outline. They soon subside and are removed by filtration. The fluid is clear and colorless II contained a delicate whitish membrane, which dissolved, for the most part, in 0.4 per cent. HCl.

SPECIFIC GRAVITY (taken with picnometer).—II = 1.0137; III = 1.0091; V = 1.0079.

REACTION.—Slightly alkaline in all cases.

DEPRESSION OF FREEZING POINT.—III = 0.541° C; IV = 0.535; V = 0.591.

COMPOSITION.—Total solids: III = 9.60 0/00; V = 13.25 0/00 Ash: III = 7.23 0/00; chlorids (as NaCl): III = 5.73 0/00; V = 6.0 0/00. Non-proteid organic matter (by difference): III = 1.64 0/00. Non-coagulable proteid: None in III or V. Coagulable proteid: I = 0.525 0/00; II = 1.16 0/00, globulins present; III = 0.726 0/00 globulin, no albumin present; V = 2.57 0/00 globulin, no albumin present. Reducing substance: Present in I and III (in III less than 0.3 0/00); absent in II (polarimeter, Moore's phenylhydrazin, Trommer's and fermentation tests).

COMPILATION OF ANALYSES.

I have searched through the literature (see bibliography) for other analyses and found about 30 recorded

of human cerebrospinal fluid, and a somewhat larger number for other mammals. Adding to these the fluids analyzed by me, I have compiled the following table, which, I think, gives a sufficient picture of the chemical data of this fluid.

	Specific Gravity.	Depression of Freezing Point.	Total Solids. Per cent.	Total Ash. Per cent.	Coagulable Proteid. Per cent.	Reducing Substance. Per cent.	Clorin as NaCl. Per cent.	Urea. Per cent.
Human.								
Number of analyses.	9	3	14	15	20	.	11	2
Extremes.	1.006–	0.535–	9.6–	7.25–	0.2–	0.0–	4.48–	0.044–
	1.0137	0.591	19.23	9.48	5.8	0.555	8.0	0.098
Mean	1.0079	0.541	10.75	8.5	0.9	. . .	6.6	0.071
Proportion of cases within 10 per cent. of the mean.. . .	6/9	3/3	9/14	13/15	5/20	. . .	7/11	. . .
Proportion of cases within 25 per cent. of the mean.. . . .	8/9	3/3	12/14	15/15	8/20	. . .	11/11	. . .
Dogs.								
Number of analyses.			8					
Extremes	. . . . .	. . .	13.91–	. . .	. . .	. . .	. . .	. . .
	. . . . .	. . .	20.24	. . .	. . .	. . .	. . .	. . .
Mean	. . . . .	. . .	17.5	. . .	. . .	. . .	. . .	. . .
Calves.								
Number of analyses.	12	. . .	12	12	12	. . .	. . .	. . .
Mean.	1.0076	. . .	13.14	8.136	0.221	. . .	. . .	. . .
Horses.								
Number of analyses.	5	. . .	. . . .	5	13	. . .	. . .	. . .
Mean	1.0082	. . .	. . . .	8.15	1.01	. . .	. . .	. . .

DISCUSSION OF THE RESULTS.

Physical Factors.—The molecular concentration as determined by Beckmann's method was, in three of my specimens, that of normal serum. This result differs from that obtained by Zanier with Hamburger's blood corpuscle method. According to Zanier the cerebrospinal fluid of the ox is hyperisotonic to the blood serum. One c.c. of the fluid required the addition of 1.3 to 1.35 c.c. of water to produce laking, whilst serum required only 1.1 c.c. It must be remembered in this connection that Hamburger's method is only applicable when the solution to be investigated contains no molecules which can enter the corpuscles. I compared the results of this method with the freezing point in fluids IV and V. In Case 4 5 c.c. of the fluid required 4 c.c. of water to lake rabbit's blood (being therefore isotonic with a 1.1 per cent. solution of NaCl); 5 c.c. of fluid V required between 3.0 and 3.5 c.c. of water to lake human blood (isotonic with 0.98 per cent. NaCl). The determinations were made rather roughly and no comparison with serum was possible. Comparing them, however, with the depression of freezing point (IV, 0.535; V, 0.591) it is seen that the two methods do not yield analogous results. It would seem, further, that something in the cerebrospinal fluid protects the corpuscles against laking. In view of these results, Zanier's experiments need verification by the simultaneous employment of Beckmann's and Hamburger's methods.

The specific gravity varies within narrow limits for all animals and is always lower than that of serum, on account of the small proteid content. The reaction is always slightly alkaline. (According to E. Cavazzani the specific gravity and the alkalinity are somewhat greater in the morning than in the evening.)

The inorganic salts exist in about the same amount as in the serum, and consist mainly of chlorid. The average per cent. of this salt is that of serum. Foreign salts can pass from the circulation into the cerebrospinal fluid, as shown by A. and E. Cavazzani, for potassic iodid and ferrocyanid. This passage is, however, much slower than the excretion into other fluids. The salts can not be detected in the cerebrospinal fluid until after an hour, whilst they appear in a few minutes in the aqueous humor. When salts are injected into the subarachnoid space, their absorption is also very slow, requiring from 20 minutes to two hours. I had opportunity to convince myself of the presence of iodid in the cerebrospinal fluid of a child treated with KI.

Reducing Substance.—The constant occurrence and the nature of the reducing substance of cerebrospinal fluid was long a matter of discussion. Halliburton claimed that it did not reduce bismuth, and that it was pyrocatechin. These statements did not pass unchallenged. Nawrotzki, who gives also the literature of the subject, has finally settled the dispute. He finds no pyrocatechin, and shows that the substance gives all the tests of dextrose. This sugar is present in every freshly drawn specimen of the fluid, but disappears on standing. The statement of Comba, that it is always absent in meningitis lacks confirmation. Its absence in my fluid II is easily explained by the time which elapsed between the puncture and the examination.

Coagulable Proteid.—Halliburton ascertained that this is completely precipitated by $MgSO_4$, and is therefore globulin. The absence of albumin was also confirmed in the case of Thomson, Hill and Halliburton. It was also absent in the two fluids (III and IV) in which I tested for it. This normal absence of albumin in a fluid containing globulin is apparently a unique phenomenon. Panzer claims to have found albumin. It is possible that the presence of this proteid could be due to an admixture of inflammatory exudate, and that it might have a diagnostic value. Further observations are very desirable. The quantity of the proteid varies between rather wide limits, but 17/20 of the analyses show less than 2 per cent. Nawrotzki claims that a high per cent. of proteid is connected with fever. This claim needs further support. Halliburton affirmed the presence of a non-coagulable proteid. This has not been found by other investigators, and none was present in the fluids III and V in which I sought for it. Halliburton's results probably rested on an error of technic. The same author claims that fibrinogen is absent. The membrane in fluid II appears to show that fibrin may be formed, although the quantity of material did not permit positive identification.

Diastatic Ferment.—This may be present, although in less amount than in lymph or serum (E. Cavazzani). Panzer found none. Cavazzani also found an oxidizing ferment, which blues guaiac before boiling. Thomson, Hill and Halliburton found no cholin in their case.

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CLINICAL OBSERVATIONS IN STOMACH SURGERY.*

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Surgery of the stomach is still in a developmental state. Many surgeons are making progress in this field, and although there can not as yet be many conclusions which can reasonably be expected to be permanent, still it seems worth the effort to exchange the points of clinical experience at this time.

It is, of course, out of the question to discuss this subject thoroughly in the time given to a paper in this Section, but I believe that it will be possible to present the features which seem of greatest practical importance as they have impressed themselves on me in my clinical observations.

Ultimately the greatest portion of stomach surgery must be done for the relief of gastric ulcer or one of its various sequelæ—hemorrhage, perforation, adhesions, cicatricial contraction with pyloric obstruction and its consequent gastric dilatation, hour-glass stomach and carcinoma. The wider my field of observation has become the more I am convinced that there is in this condition a great opportunity for surgical work of the highest value.

The operation for the relief of hemorrhage from a gastric ulcer, introduced by Mikulicz sixteen years ago, which has been practiced by many surgeons, but was brought to the general attention of the surgical profession especially by the clearness and force of Mayo Robson's writings, will become less and less indicated as the practitioners of internal medicine become convinced of the fact that these cases can be safely relieved by a simple operation performed in the interval between attacks.

The same condition will reduce the frequency with which the surgeon will be called on to operate for the relief of perforative gastric ulcer. The statistics of Wier and Foote and those of Tinker will serve to indicate the gravity of this operation, especially when compared with the statistics of Mayo, Finney and others, of operations performed in the interval.

In all cases of ulcer of the stomach which do not heal completely and permanently by internal treatment or in which the healing is followed by pyloric obstruction, it seems proper that surgical treatment be employed. There are three factors which aid greatly in bringing about this conclusion: 1. The diagnosis can now usually be made without difficulty because the attention of the profession has been sufficiently directed toward this condition to make its recognition probable. 2. The operative technic has been so thoroughly perfected that interval operations are accompanied by very little danger. 3. A sufficient number of cases have been observed for a number of years to make the permanency of cure an established fact.

Mayo established the principle of providing perfect drainage of the deformed stomach by making an anastomosis between the very lowest portion of this organ with the jejunum. This is the most important factor which has served to build up a satisfactory technic in this class of cases. Many surgeons operating on the stomach have not yet grasped this idea. This is true especially of the surgeons who have been unsuccessful in this class of work. It should be stated here that in making a posterior gastroenterostomy the surgeon will employ this principle in most cases, whether he does it intentionally or accidentally, but in the anterior operation he is just as certain not to do this, unless his attention is fixed on this end at the time of the operation.

In my own experience the persistent vomiting after gastroenterostomy—"vicious circle"—has been absent since I appreciated this principle and have applied it. The vomiting simply resulted from the fact that fluid could not help flowing into the stomach from the proximal end of the small intestine, because it had to flow down hill, the opening in the stomach not being in the lowest point of this organ. All that has been said and written concerning the cause of this pernicious vomiting, with the exception of what refers to this one condition, is, I believe, based on faulty observation, and all of the complicated operations which have been invented to prevent this vomiting are unnecessary, if the principle introduced by Mayo is properly appreciated and applied.

ELASTIC LIGATURE METHOD.

It is probably of little importance whether the anastomosis is made with ordinary sutures or with those aided by a mechanical splint, like the Mayo-Robson decalcified bone bobbin, or with the Murphy button. In all but thirteen of my cases I have used the Murphy button, in four the needle and thread and in nine the McGraw elastic ligature. All of the latter I have made during the present year, and have found the method exceedingly easy and satisfactory so far as the immediate results are concerned. None of the patients showed any shock. They were all able to sit up in bed on the day following the operation and all recovered. The time which has elapsed since these operations were performed is, however, too short to determine the ultimate result. The points of importance in this method are that as large an opening as desired can be obtained and that there can not possibly be either separation or leakage or infection from the intestinal or stomach contents.

In applying the method the following conditions must be borne in mind: 1. A round rubber cord 2 mm. in diameter, made of the best material, should be used. 2. A posterior row of Lembert sutures is applied. 3. A long, straight needle armed with the rubber ligature is passed into the lumen of the intestine and out again at the desired distance, from 5 to 10 c.m. away from the point of introduction. 4. While an assistant holds the intestine the surgeon stretches the rubber in the needle and when quite thin draws it rapidly through the intestine. 5. The same step is repeated through the stomach. 6. A strong silk ligature is placed across and underneath the rubber ligature between the latter and the point where the stomach and intestine come together. 7. A single tie is made in the rubber ligature after the latter has been drawn very tightly. 8. The silk ligature is passed around the ends of the rubber ligature where they cross and tied securely three times. 9. The ends of the latter are released and cut off, being held by the silk ligature. 10. The Lembert suture is continued around in front until the point of its beginning is reached, where it will be tied. 11. Care must be exercised to prevent tying the rubber ligature too far backward and thus getting behind the posterior row of Lembert sutures.

I am thus explicit in describing the steps of this operation because I find that only those who are thoroughly familiar with the method have used it, and apparently all with great satisfaction.

* Read at the Fifty-fourth Annual Session of the American Medical Association, in the Section on Surgery and Anatomy, and approved for publication by the Executive Committee: Drs. A. J. Ochsner, J. E. Moore and De Forest Willard.

It has been found that a gastroenterostomy opening made with a Murphy button will remain open and act perfectly in cases in which the pylorus is permanently occluded, but in cases in which it is only temporarily occluded because of an open ulcer with its resulting induration and edema, the gastroenterostomy opening contracts as soon as the pylorus again becomes normal or nearly so. Unfortunately, this closure of the gastroenterostomy opening is likely to be followed by a recurrence of the ulcer and the consequent obstruction of this orifice, which frequently necessitates a repetition of the operation.

This can be avoided by making an excision of the pylorus at the time of the primary operation or by closing the pylorus with a silver wire passed around the pyloric end of the stomach or the beginning of the duodenum two or three times, drawing it just tightly enough to occlude this orifice completely, but not sufficiently tight to cause pressure necrosis. This method has, however, not been tried sufficiently to secure its absolute establishment.

It is claimed that by making a large anastomotic opening by means of the McGraw elastic ligature one can secure a permanent opening under all conditions. My own cases are still too recent to be of value in confirming this claim. The results secured in cases of the class under consideration by the operation of gastroenterostomy properly performed are certainly very encouraging.

Recently Fowler has described an operation consisting in gastroenterostomy and enteroenterostomy between the portions of the jejunum at the proximal and distal side of the point at which the anastomosis was made with the stomach. Aside from this the intestine is occluded by means of a silver wire passed three times around its lumen between the point at which it is anastomosed with jejunum and the stomach, so that the bile and pancreatic fluid can be emptied into the small intestine, but not into the stomach. This operation has given very satisfactory results in the hands of its author, but in my experience the much simpler method of making an anastomosis between the lowest portion of the stomach and the jejunum has been so satisfactory that I have not found it necessary to make the more complicated operation.

PYLOROPLASTY.

Operations for the enlargement of a contracted pylorus have not been very satisfactory, principally because the obstruction was not fully relieved by the operation usually employed—the Heinecke-Mikulicz or some modification of this—on account of the pouch-like deformity which is present in most of these cases, necessitating the elevation of the food to the level of the pylorus before it can be emptied into the duodenum even after the plastic operation has been made on the contracted pylorus.

One year ago Finney published a method which seems to promise well, but it has not attained sufficient age to have stood the practical test of time. I have employed this method but once, making use of the McGraw elastic ligature instead of making the horse-shoe shaped incision.

Theoretically this is a good operation and practically it can be performed with great ease. It will be interesting to observe the permanent results in the cases which have been operated on by this method during the past year.

In many cases a very moderate pyloric obstruction will give rise to most distressing symptoms because it is accompanied not only with a pouch-like deformity of the greater curvature of the stomach, but because at the same time gastroptosis is present. Thus the normal drainage of the stomach is interfered with mechanically in three ways: 1. By the constriction of the pylorus. 2. By the deformity. 3. By the malposition of the organ.

In simple enteroptosis a number of authors claim great benefit to the patient from various operations intended to elevate the organ. Most of these methods interfere seriously with the mobility of the organ and are painful, for a time at least.

This is not the case with the method described and practiced by Beyea, and that devised independently by Bier. These methods are very similar and virtually consist in shortening the gastrohepatic and gastrophrenic ligaments by means of several rows of fine silk sutures.

Experience seems to show that this method gives permanent relief in simple gastroptosis, the pain disappearing quickly and permanently, and the patient gaining rapidly in weight and strength. Whether this method is applicable to cases such as I have described remains to be seen by experience.

I have operated on but two of these cases by a method similar to those mentioned above, but which at the same time fixed the stomach to the abdominal wall. The results were so unsatisfactory, although in each case I could note some improvement, that I did not repeat the operation.

Since studying the methods described by Beyea and Bier, it seems plain that the interference with the mobility of the stomach prevented the complete recovery of my patients, and that with better technic the results would have been better.

OBSTRUCTION OF PYLORUS DUE TO CARCINOMA.

In carcinoma of the pylorus there is never any indication for performing a complicated operation similar to that described by Fowler in connection with gastroenterostomy, because the pylorus is permanently obstructed at the time of the operation, and this obstruction becomes more complete as time progresses.

In cases in which the tumor is sufficiently circumscribed to make its removal practicable, there is again no occasion for performing any operation except an anastomosis between the remnant of the stomach and the jejunum. It is, however, important to select a point sufficiently distant from the point at which the duodenum passes through the mesocolon to avoid all tension. The operation is very simple if performed after a definite plan.

The duodenum is clamped double after tearing a small opening through the folds of the omenta above and below. It is then severed between these clamps. A circular silk suture is applied to the end of the duodenum, and while this is tied the crushed end is inverted into the lumen of the intestine. A few sutures will serve to cover this circular purse-string suture and complete the closure of the intestine. Then the greater and lesser omentum are caught successively, always between two pairs of forceps, care being taken not to injure the pancreas behind the duodenum to the right and the vessels supplying the colon below.

In this manner any desired portion of the stomach or the entire organ can be removed without causing any considerable amount of shock or the loss of much blood. When a safe point has been reached beyond the growth, two pairs of clamp forceps are again applied and the same steps repeated that were described in connection with the duodenum. Instead of applying a purse-string suture, however, it is best to apply a simple glover's stitch, grasping the stomach wall to either side of the

clamp forceps, and passing loosely across the latter. When the entire row of sutures has been applied, the forceps are loosened and the suture drawn tightly. This serves to insert the crushed end of the stomach into its lumen. Then a second row of continuous Lembert sutures is applied over this row, leaving the stomach in the form of a closed sac. An anastomosis is now made between the remaining portion of the stomach and the duodenum, preferably by means of the Murphy button. At this point it is of the greatest importance, first, to choose the lowest point of the stomach; second, to select a portion of the jejunum which is sufficiently free to prevent all tension.

Of course, in cases in which it is not possible to remove the entire tumor, it is much better for the patient if only a gastroenterostomy is made to give temporary relief from the pyloric obstruction.

It should be stated here that occasionally a carcinoma will be found which is apparently perfectly movable, but which is found later to have invaded the pancreas, the latter organ being attached to and moving with the stomach.

GASTRECTOMY.

Complete gastrectomy, although it is now a recognized operation, must always remain rare, because cases in which the disease is sufficiently advanced to require this operation are usually so far advanced that the operation is useless. When indicated, the steps which have just been described are simply to be carried further until the entire organ has been removed. Here again, it is of the utmost importance to unite the esophagus to a loop of the jejunum, sufficiently loose to prevent tension.

I have never removed the entire stomach, but in two cases of partial gastrectomy so small a portion of the cardiac end of the stomach could be preserved that I virtually had an opportunity to test this method. It is very simple, and I believe it must be ordinarily, at least temporarily, successful in cases in which it would be indicated.

In all of these operations there are a few points of great practical value, concerning the preparation of the patient and the after-treatment, which are not generally appreciated and which are consequently worthy of mention in this paper.

Many of these patients entered the hospital in an extremely emaciated condition, because almost always milk is the only food which has been given for a considerable period of time. The stomach contains a quantity of residual decomposing material and the milk which is taken is at once changed into a similar decaying substance, from which it is, of course, impossible to secure any nutrition, even from the portion which may pass the pyloric obstruction into the intestine. If the stomach is carefully irrigated with warm normal salt solution through a large-sized stomach tube before food is given, every three to six hours, the conditions for obtaining some benefit from the food will be greatly improved. In most cases the use of an ounce of one of the various concentrated liquid predigested foods in the market, given in three ounces of normal salt solution after making gastric lavage every three to six hours, will be followed by rapid improvement in strength. In this manner the absorption from the stomach of products of decomposition will be prevented, and for this the absorption of at least a small amount of concentrated food will be substituted. It is best at first to spray the pharynx with a 4 per cent. solution of cocain and to permit the patient to swallow a little of this rather than to wait for five minutes before introducing the stomach tube. This will prevent unnecessary gagging and discomfort of the patient.

It is well to introduce through the stomach tube into the stomach once a day, or less frequently, after the lavage, two ounces of castor oil or olive oil and then to withdraw the tube. Unless the pylorus has been entirely occluded the oil will find its way into the intestine and will aid the nutrition of the patient.

It is well to place these patients on nutrient enemata at the same time. One ounce of one of the liquid predigested foods in the market, dissolved in three ounces of normal salt solution and introduced through a soft rubber catheter which has been inserted a distance of two to three inches, seems to be of the greatest value.

In case the patient is nauseated after the operation, gastric lavage should again be employed at once. If the patient has been accustomed to the use of the stomach tube before the operation, it is, of course, a great advantage to him after the operation.

It is important to use only a small amount of water in making gastric lavage after the operation for fear of disturbing the healing of the wound in the stomach. We introduce but half a pint at a time. Neglecting this precaution caused the death of one of my patients.

Rectal feeding should be continued for two weeks after the operation, but small amounts of predigested liquid nourishment may be given every three hours by mouth after the fourth or fifth day in most cases.

I have reviewed the histories of the cases on which I have made stomach operations at the Augustana Hospital, and find that in seven cases gastrostomies were made for the relief of obstruction of the esophagus; one of these was made for the purpose of dilating a benign stricture, one for the purpose of feeding a patient who had been starved to a mere skeleton because of the presence of a diverticulum which had completely occluded the esophagus. The former case recovered, the latter died of exhaustion. She was in an almost hopeless condition when she entered the hospital. Of the five remaining cases operated on for obstruction of the esophagus due to carcinoma, three recovered and two died of exhaustion, being in a hopelessly starved condition when admitted.

Two cases operated on for perforation of the stomach, one due to ulcer, the other due to gunshot wound, both died from diffuse peritonitis which was present at the time of admission. In each case the perforation had existed for eighteen hours and the abdominal cavity was full of food and a thin cloudy fluid.

There were nine pylorectomies and incomplete gastrectomies with three deaths, one from shock two hours after the operation, one from overdistension of the small remnant of the stomach with fluid during gastric lavage after the patient had been normal for four days. The lavage was ordered because the patient was slightly nauseated and the nurse misunderstood the order in regard to the quantity to be used at a time. The third case died as a result of loosening of a Murphy button on the seventh day. The patient was badly nourished, and it is likely that union was retarded.

In the first of these three cases a gastroenterostomy should have been made, because the patient's condition was greatly reduced on account of the complete obstruction of the pylorus by the carcinoma, but the tumor seemed so completely confined to the stomach that it seemed as though its removal might result in a permanent cure. In the second case, the death was plainly due to an accident, which could have been avoided. In the third case I believe that my technic was at fault.

There were seventeen gastroenterostomies for the relief of non-malignant obstruction of the pylorus. Of these sixteen recovered and one died. The latter was a patient 74 years of age, greatly reduced in strength, with an almost complete cicatricial obstruction of the pylorus. Her death was due to exhaustion.

There were also twenty-one gastroenterostomies for the relief of pyloric obstruction due to carcinoma in cases in which a complete excision of the tumor was not possible. Of these twenty recovered and one died from exhaustion. The patient was greatly reduced on account of an almost complete obstruction of the pylorus. He was 65 years of age. The autopsy showed perfect healing of the anastomosis and there was no peritonitis.

During the same time I have operated on a number of cases at two other hospitals, but I have not had the necessary time to review the histories of these cases, and consequently this paper was based on the observations made in the study of this series of fifty-six cases.

Regarding the immediate results, I would say that the cases of obstruction due to carcinoma experienced great relief, many of them being not only freed from pain and nausea and vomiting, but gaining very greatly in strength, and almost all expressed their great appreciation of the benefits of the operation. The ultimate results in these cases will be reported later.

In the non-malignant cases I think that there has been great benefit in almost every case. The ultimate results will also be reported later.

It is likely that a larger experience will modify many of the opinions expressed in this paper, and it is not intended that it should carry great weight.

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DISCUSSION

ON PAPERS OF DRS. KNOTT, NILES AND OCHSNER.*

DR. E. WYLLIS ANDREWS, Chicago—It must be admitted that American surgeons have been backward and that they are following in the steps of the Germans in developing gastric surgery. But, of course, we all know that the world recognizes the excellent pioneer work of the American surgeons in intestinal surgery. The evolution of gastric surgery will take over a large number of men, who formerly treated the cases medically, into the surgical domain. We used to accept those cases when they were sent to us by the interne for operation, which was very rarely. Now we assume that the pathology, symptomatology, etiology and indications for operation belong to our field. There is no more reason why a gastric ulcer should be classed as medical than there is why the same condition on the leg or on the tongue should be considered a medical disease. Dr. Dunsmoor expressed his surprise and disapproval that so many surgeons were willing to enter on operative work in the lower abdomen, and were so much afraid of the work above the umbilicus. I remember reading the statement by Dr. Willoughby Furness that the proximity of the solar plexus made surgery in the upper abdomen more dangerous from the standpoint of shock. Now this false conservatism or timidity deters operators in this field, but when you consider the anatomy you will find that it is easier to repair the stomach walls than it is to do the same in one of the small intestines. It is a fertile field for the operator. What are the indications for operative interference in stomach disease? The indications are not simply existence of chronic stomach disease, whose nature we can not determine. I think the trend of modern surgery is in this direction: when we have a case of chronic stomach trouble we operate for diagnosis. How many times a dyspeptic patient will be operated on, say for hemorrhoids, then sent to some specialist, who will remove an ovary; then you may send for some one who will anchor a floating kidney; then for some one, who in despair will remove the appendix; and after all this the patient comes back to you as bad as ever. But if the patient had been sent to a surgeon who would have performed a gastroenterostomy in the first instance you would have cured the case. Dr. Ochsner spoke of a number of cases in which he had operated for pure gastric pain. Probably he now performs a gastroenterostomy on all cases of obscure gastric pain and cures a large proportion of them. Now, I think we must all recognize that the chain of disorders, beginning with ulcer and ending in stenosis or carcinoma, we have the same indication for early operation that we have in other abdominal conditions. There is frequently the case of the gastric ulcer, running over a period of pain, vomiting and hemorrhage, and later producing carcinomatous degeneration of the healthy tissue. Dr. Bevan has reported a case of pylorectomy for the removal of pyloric carcinoma, which commenced in ulcer of the stomach. Dr. Niles traced in his paper the history of a carcinoma of the pylorie end of the stomach, beginning, as you will find nearly every one of them, in gastric ulcer. Surgery must recognize the clinical continuity of these factors ending in carcinoma, and must operate more often in the ulcer stage without waiting for perforation, hematemesis or malignant obstruction.

DR. WILLIAM J. MAYO, Rochester, Minn.—The surgery of gastric ulcer at this time is really the surgery of its complications. This is shown by the first two papers that were read to-day in regard to stomach adhesions, pyloric obstruction, hemorrhage and perforation. It is not the gastric ulcer which we have been operating for; it is the complications of the gastric ulcer. We must keep this very clearly in mind. What are we going to do with the cases we see before the complications arise? This is a part of the subject which must be cleared up. The ulcers which produce the complications are usually in the pylorie end of the gastric cavity. The pyloric part of the stomach is the muscular part, and it is on this side that we not only get the gastric ulcer, but at least 60 per cent. of all the gastric cancers, and it is altogether probable that many have their origin in ulcer. We can not usually excise these ulcers, as they are often multiple. I have searched for a bleeding ulcer half an hour and been unable to find it, although the patient had a severe hemorrhage three or four days before the operation. The pyloric obstruction is a complication of gastric ulcer, but the ulcer is there long before you get the obstruction; so that operations on the pylorus can not cure the condition, because the ulcer does not depend on obstruction, and in many of the cases the ulcer is beyond the pylorus in the duodenum, and after plastic operations, which are intended to cure the ulcer by enlarging the pylorus, the food must still pass through the ulcerated area before it reaches the bowel.

Gastroenterostomy is the most satisfactory operation for ulcer, as it drains the stomach at a point to the left of the ulcerated portion, and if the pylorus be obstructed the cure will be permanent; but if the pylorus be open, as soon as the ulcer heals the spasm relaxes and the food passes down through the pylorus again and the fistula contracts, and relapse may occur. In such cases resection of the pyloric end of the stomach or the ulcer bearing area will be best, as recommended by Rodman.

Just a word in regard to cancer. Our only reasonably satisfactory operations for this condition have been extirpation. The operation for pyloric growth usually is not difficult, and by removing all of the lesser curvature the pylorus and the body of the stomach to the left gastroepiploic vessel, all of the lymphatics will be removed and the remaining portion of the stomach may be expected to remain free, as it is isolated from the pyloric end by reason of a separate vascular and lymphatic arrangement. In 27 resections of the stomach for cancer, 5 died from the operation, one died later from another cause; but of the 21 that recovered, the average length of life was over a year, one living over three years and two alive and well over two years.

DR. CARL WAGNER, Chicago—Three cases of so-called inoperable carcinomatas, which have occurred in my practice, come to my mind. The most important one afflicted a woman aged 53. She was emaciated to a skeleton and had a tumor of the size of a fist in the stomach region, which first appeared about a half year previous, growing steadily since. The pa-

* The papers of Drs. Knott and Niles appeared in THE JOURNAL of May 23.

tient presented all the symptoms of carcinoma of the stomach, such as the presence of lactic acid, absence of muriatic acid, emaciation, vomiting and pains. Several surgeons were consulted, who all concurred in the diagnosis of inoperable carcinoma of the pyloric end of the stomach. The patient had another tumor in the inguinal region, below the Poupart ligament, also the size of a fist, which was diagnosed as a lipoma, and, of course, not brought into any connection with the tumor visible in the stomach region. When she came under my care I also was of the opinion that I was confronted with inoperable neoplasm of the stomach, and took therapeutic measures accordingly, until one day I recollected a case of my former experience, where I found, with an exploratory laparotomy, a fatty tumor, originating in the ligamentum teres, hepatis suspensorium and overlying parts of liver, stomach, gall bladder and part of ascending and transverse colon, which caused a condition similar to that presented in the present case. Thus I resorted to an exploratory laparotomy also in this case.

The tumor, which the operation exposed, consisted mainly of omentum, which had converted part of the stomach, colon transversum, liver, gall bladder and the corresponding parietal peritoneum, through exudates and adhesions, into one solid, unique mass. It could be removed very readily, in spite of a few difficulties, and careful examination showed otherwise absolute normal conditions of the organs involved. There were no signs of old ulcer cicatrices in the stomach in spite of the fact that such could have been suspected to exist on account of pains, which the patient stated she had suffered during nineteen years previous to the first appearance of the tumor. This latter misled the physicians to conceive the theory of ulcer, cicatrix and subsequent carcinoma, just as in the book.

I closed the abdomen, somewhat disappointed at not having found any explanation for the development of the inflammatory condition of such grave bearing on the whole organism. However, when I proceeded to extirpate the alleged lipoma, which, as above stated, was located at the region of the fossa ovalis femoralis, everything became clear to me. After freeing it from its covering, it unfolded itself just like a lipoma arborescence, such as we find in the knee joint, and with a pedicle as thin as a lead pencil entering into the femoral canal in the peritoneal cavity. On traction it proved to be in connection with the omentum and represented an elongated end-piece of it, which had slipped through the femoral ring in the form of a femoral hernia out of the abdominal cavity, and developed outside of the femoral ring into this large tumor.

The weight of this extra abdominal tumor caused, with every motion, especially when walking, a pulling, jerking sensation at the insertion point of the large omentum, namely, at the large curvature of the stomach, and thus produced intense pains. In the good old German style, hot plates, hot poultices and all kinds of other counter-irritants were applied frequently to the stomach region, during years, with the result that in time local peritonitis, with adhesions and exudate masses, developed. Seven years have elapsed since the operation and the woman is still enjoying very good health. Consequently, the alleged inoperable carcinoma of the stomach, which had reduced the patient to skin and bones, and, undoubtedly, would have terminated her miserable existence within a few weeks on account of marasmus, was no carcinoma at all.

This case serves as an excuse for a plea for greater frequency of exploratory laparotomy in such so-called absolutely hopeless cases of inoperable carcinoma of the stomach.

DR. WILLIAM L. RODMAN, Philadelphia—There is no more important subject at the present time than gastric surgery. Here in America we have been a little slow in moving along in this direction. I think that Dr. Mayo admirably summed up the situation when he said that the surgery of the stomach is principally the surgery of the complications of ulcer rather than the first ulcer itself. I think we should always keep in mind that it is the complications resulting from gastric ulcer that require operations on the stomach. Therefore, as he says, the real question is as to what to do with the gastric ulcers, if they can be diagnosticated sufficiently early to render excision possible. There is no doubt that we will come very early to the excision of the ulcers before complications take place. It has already been done in an increasing number of cases year by year, and I feel that in time the treatment of gastric ulcer will be partial gastrectomy, and that the mortality will not be more than 5 or 10 per cent. Taking all the early operations done during the past fifteen years, it has not been more than 15 per cent., and surely at the present time it should not be more than one-half of that.

I would like to call attention to one point that Dr. Knott did not refer to in his paper. These adhesions between the anterior wall of the stomach and the abdominal parieties, which would seem to be easy and safe to break up during the operation for gastric ulcer, do not always prove so. Thus, Hoffmeister has said that adhesions should always be picked apart very carefully, having in mind not only the possibility, but the probability of tearing into the wall of the stomach itself.

On one point I would rather differ from Dr. Niles. He speaks of the inadvisability of excision in a majority of instances because of the fact that multiple ulcers may exist. That is true undoubtedly in many instances, but it does not occur sufficiently often to deter one from doing a partial gastrectomy if there is a well-marked tumor, and it may occur even in benign as well as malignant disease. Even if the small ulcer is overlooked, no harm is done. We must remember always, as Dr. Niles and Dr. Murphy and Dr. Ochsner have said, that there always is a marked tendency to the development of benign disease in the stomach, when there has been chronic disease. Some go so far as to make the statement that at least 50 per cent. of all gastric ulcers go on and develop into carcinoma, and we must all admit that a great number do, and it is for this reason that partial gastrectomy, which is not much more dangerous than gastrojejunostomy, is of much more value. I also wish to say with Dr. Ochsner, that we owe a great deal to Dr. Mayo in perfecting anterior gastrojejunostomy. There is no doubt that the anterior operation will closely rival the posterior method, and there is no more reason why the vicious circle should occur when the anterior operation is done, than when the posterior is performed. Personally, I have always employed the latter operation. It seems to me to be the most anatomic, and the majority of writers prefer it to the anterior. The anterior operation is of so much advantage early in the breaking up of these adhesions, that if it can be done without the vicious circle (and I believe it can), it will certainly be used far more in the future than it has in the past. I have no doubt that it is very important that the lowest point on the wall of the stomach be selected, where drainage can be easily established, and in that manner I am sure that the vicious circle will be avoided. I believe that with the operation as performed by Dr. Mayo, or by Dr. Van Hocker, there will be in a certain number of cases the vicious circle, but these cases must be subsequently met by entire anastomosis.

DR. A. H. CORDIER, Kansas City, Mo.—If we could locate the position of the ulcer, on first thought it would seem advisable to excise it, but when we take into consideration the pathologic changes, the difficulty of locating the ulcer at the time of the operation, the inability to define its limit, the numerous vascular adhesions to surrounding organs and the slowness with which scar tissue heals, this idea is then dispelled and some other procedure suggests itself that would be equally efficient and less dangerous. This operation I believe to be preferably gastroenterostomy. I have performed a number of these operations. The majority of them have been performed in the anterior wall of the stomach. In none of my cases have I had any trouble from the so-called vicious circle. It is very essential that the opening in the stomach should be at the most dependent point. This feature of the operation I called attention to some eight years ago. Many of these cases at the time of the operation have been erroneously diagnosed as malignant, and even during the operation the indurated mass surrounding the side of the ulcer has been misleading.

When you take into consideration the fact that there frequently exists attachments to the pancreas, the liver and other structures, and that there is an indurated mass with inflammatory and secreticial changes, you can easily understand that one might be lead into believing the condition to be malignant. Hence, many of these cases have been permitted to go on and die as malignant. Cases have recovered from an anastomosis between the stomach and the intestines. That has been so in two or three of my cases. Even at the time of the operation I have made the diagnosis of malignancy. I do not approve of the partial removal of the stomach in malignant cases, as very few, if any, of these cases are permanently cured by such procedure, beside, the operation is one attended with a high mortality, and the patient's condition is not more comfortable during the time that they live than if an anastomosis had been made between the stomach and the intestines. These patients are in a condition, as a rule, that will not tolerate prolonged operative procedures, hence the operation must be quickly performed in order to keep down the mortality.

I would give my preference to the use of the Murphy button in these cases, owing to the time in which it can be done and the fact that the great majority of them recover by this procedure.

DR. ARTHUR DEAN BEVAN, Chicago—I feel that it is unfortunate that this subject has been divided up between two sections. I call attention to the fact that in the Section on Obstetrics and Diseases of Women a paper has been read on the subject of "Gastric Ulcer and Its Complications." I should like, and I think it proper, Mr. Chairman, to call attention to the fact that another Section in the Association is infringing on the rights of this Section, and that a paper is being read over there that properly belongs to the Section on Surgery and Anatomy. In the second place, I call attention to the fact that the very important work of obstetrics has been largely omitted by that Section, and on this account I give notice that I shall, at the proper time, make a motion that the delegates of the Section on Surgery and Anatomy be instructed to call the attention of the House of Delegates to this point, and to ask them to notify the Section on Obstetrics and Diseases of Women of this fact, call their attention to the fact that they are infringing on the work of the Section on Surgery and Anatomy, and to instruct them in the future to limit their work to the very important work of obstetrics and the surgical work on the genital organs of women.

DR. VAN BUREN KNOTT, Sioux City, Iowa—The general trend of your remarks seemed to be in accord with the policy urged in my paper; in other words, that the surgery of the stomach is on the increase, and that many cases had been in the past improperly treated or not treated at all, which, in the light of recent knowledge, could have been relieved by surgical methods. While we in the United States have been in the past accused of being behind the advanced position secured by Germany in gastric surgery, we will no longer be liable to such criticism, as in this country as good work is being done in this direction as is done anywhere. With the increased experience gained by the larger volume of work done, our ability to better treat these cases will increase and will be made manifest by better results. The securing of better results will encourage more men to take up this work, and more exact diagnoses will follow, and with the diagnosis will be found the treatment.

DR. H. D. NILES, Salt Lake City—My reason for preferring gastrojejunostomy in the treatment of ulcers of the stomach is that the ulcer will get well, no matter what stage it may have reached, if the part is put at rest. In other words, if you rest the ulcer it will be naturally inclined to heal of itself. Moreover, when you remove the ulcers that you see by excision you are sure to leave two or three there that you can not see, and which in time are pretty sure to do damage. Gastroenterostomy removes all those ulcers which you see, but there still remains those which you do not see. We know that there is a pathology in the upper half of the abdomen, in and about the stomach, that produces many deaths, and we have been discussing these different measures for treatment, while many of our patients go on to death. We know that there is one radical way to reason, and if each of us will be positive in his conviction that there is only one kind of treatment that is based on surgical conception, I am sure that the mortality following gastric pathology or the treatment of gastric pathology will be much less. It is time for this gastric pathology to be removed, not only from the domain of medicine, but from obstetrics and gynecology, and the treatment of the future will certainly follow the paths of surgery for the removal of the pathology in the upper half of the abdomen.

DR. A. J. OCHSNER, Chicago—The statistics concerning my own experience which I gave in my paper and the discussion of Dr. Cordier would seem to leave the impression that pylorectomy is an operation which will be likely to be abandoned more and more. The facts of the case are, however, precisely the opposite for the following reasons: Up to the present time these cases have come under our care at a time when the complete removal of the carcinoma of the pylorus was exceedingly improbable, which is shown by the fact that out of 79 cases on which we attempted to operate, 23 were cases in which no operation at all was possible. However, we find that the stomach, with its thick walls and with its distribution of lymphatics, which Dr. Mayo has described, is an organ of which the complete removal is not at all impossible and the statistics of Mikulicz, Czerny, Kocher, Mayo and others would confirm this.

The reason why the mortality has been large in my own cases is that in two cases a fatal blunder was made; in the third case a gastroenterostomy should have been made, in order to make it possible to build up the patient who was virtually starved and a pylorectomy should have been made later. Eliminate these blunders and the mortality would not have been high. Another reason why the mortality has been high, is because we have not approached this operation in a sensible way. If we will apply two pair of forceps to the duodenum as far as possible beyond the tumor and still sufficiently close to the latter to avoid injuring the common duct, we can cause a compression which will prevent any danger of hemorrhage from this point and which will facilitate the closing of the duodenum. We then apply another pair of forceps to prevent hemorrhage from the gastrohepatic omentum. The gastrocolic omentum is grasped in the same way. After these forceps have been applied a section is made of the duodenum between the first two pair of forceps which are left in place. If the malignant growth is confined to the tissues of the stomach the operation can be accomplished with great facility. A point to be borne in mind is, that the gastrohepatic omentum is to be removed. Therefore, we place successive pairs of forceps up to a point beyond the distribution of the lymphatics which communicate with the pyloric end of the stomach. There can be no hemorrhage because the blood supply comes from vessels caught by these forceps.

In doing this operation we must be careful not to injure the pancreas or to go too close to the transverse colon. If we bear these points in mind we can accomplish the operation safely in a short time. The pyloric end of the duodenum can be closed best by placing a simple purse-string suture about the duodenum. There can be no hemorrhage because this suture compresses all of the vessels. Then you take the lowest point you can select in the remaining portion of the stomach and attach it to the jejunum, leaving a sufficient portion free beyond the point at which the duodenum crosses the mesocolon to prevent all tension.

I think that with early operation and with these steps in view we should in the future have, not 5 or 10 per cent., but a very large proportion of permanent cures.

No Damages to Eddyites.—The interesting situation is reported from Des Moines, Ia., of an Eddyite suing for damages inflicted by falling into an unprotected hole. The *Chicago Clinic* says that the Solomon who presided over the case brought the litigant to testify that there is no disease, pain or ache. He instructed the jury that the defendant could not be held for negligence in the production of things that, according to the testimony of the plaintiff, did not and could not exist. The jury decided against the Eddyite.

RESULTS IN RADIOTHERAPY.*

H. R. VARNEY, M.D.
DETROIT.

Radiotherapy is, perhaps, the most important therapeutic agent in the history of dermatology. Its possibilities are at present far beyond human conception, as its influence on heretofore incurable diseases is now beyond experiment and is recognized and applied by some of the most careful investigators in the profession.

We are to-day obtaining more perfect results in many rebellious deforming skin affections than have ever been obtained by any other therapeutic appliance. The field which has awakened the most widespread interest, and gained the confidence of the profession, has been its influence on cancer.

The purpose of this paper is to assist in outlining its field of usefulness by giving a full report of my first fifty cases of cancer, personally treated by the rays, with clinical observations and management. As there is no standard of technic to guide the operator, such reports, coming at this time from different operators, from different parts of the country, should be of great value.

Electricity, we all know, has been in the hands of the quack for some years. We must now seek to prevent the abuse of this new, wonderful therapeutic agent, the *x*-ray, in recognizing and accepting the work only of earnest and conscientious men in this line, and by co-operation in exchanging reports of our work.

When we hear a statement coming from surgeon or general practitioner that the radiotherapist is still at sea regarding the true field of this therapeutic agent and results obtained, we feel now that we are able to prove to the contrary. Until now, however, merely an extension of time has been asked to determine whether or not the results are merely temporary.

In reporting these first 50 cases of cancer, it is only fair to the treatment to state that out of this number 38 were absoluely grave, inoperable, recurrent cases, so conceded by reputable surgeons, 13 were sarcoma, 6 lymph-sarcoma, and 7 osteo-sarcoma; 37 carcinoma, 19 of which were epithelioma. The results of these cases can be summed up, briefly, as follows: With the exception of 8 cases which are still under treatment, one year has elapsed since the rest were discharged, those living to date being constantly under observation or in communication.

Cases ending fatally	10
Cases discharged unimproved, treatment discontinued	5
Cases referred for operation	4
Cases improved and still under treatment	8
Cases referred to other operators	4
Cases discharged, clinically cured	19

The ages of the patients ranged from 18 to 84; 19 females; 31 males.

CARCINOMA.

In summarizing the clinical results, many conclusions may be deducted, if cases are classified, as:

First, carcinoma, or deep seated. Of this group 13 were of the breast, 1 uterine and vaginal, 1 intestinal, and 2 reetal.

All the breast cases, except one, were recurrent, either in the old scar or the remaining breast. They were considered hopelessly inoperable. Complete disappearance of the growth occurred with the rays alone in 3 cases, and combined with the rays and knife, 2 cases; partial disappearance or reduction of growth in 5, and no perceptible reduction in 3. Pain completely relieved in 6; temporarily relieved in 3; no pain, 4. Clinically cured and discharged, 5; in 2 of which a slight recurrence has appeared, after one year, and this again subsided after another short course of treatment. Ending fatally, 3; unimproved, 1; referred to other operators, 2; still under treatment, 1.

While I can from this group of cases report only 5 clinically cured—2 of which after one year have had slight recurrence—yet even this very small percentage in a class of hopeless cases, to me is most encouraging.

Conclusions drawn from this group of carcinoma of the breast, so treated, are, first, relief from pain; in a large percentage of cases when beginning treatment, patients are often requiring increased doses of morphin, when, after but few irradiations, pain is relieved in the most severe cases, and opiates no longer required, demonstrating a most powerful therapeutic action, an action influencing deep seated and superficial pain alike, and the afflicted patient thereby spends the last few days or months in comfort, compared to the untold suffering heretofore experienced with such growths.

Secondly, in an, as yet, uncertain number of cases the growth or cancer mass diminishes in size and disappears, the patient gains in flesh, feels perfectly healthy and is discharged clinically cured.

Third, malignant conditions of the breast, pathologically the same, do not react the same to the rays. More light must be thrown on the etiology of cancer and much, I think, depends on the resistance of the normal cell structure.

Fourth, metastasis occurs in a large percentage of these cases, whether neglected, operated on or irradiated. Cases in this group have been under ray treatment for six months and more, with no metastasis taking place as far as can be clinically ascertained.

Fifth, combined operation with the rays, in cases that would otherwise be considered inoperable, offers encouraging ground for work. I have in this group one case clinically cured to report. Treatment of two weeks' irradiation before operation and continued treatment as soon as the wound is solid enough to permit. In these cases large open surfaces can be safely left to granulate, and be rapidly healed with a soft scar that offers more resistance than does the complete closing of the wound with great tension on the integument, limiting the motion of the arm, which often exists in a complete Halstead operation.

Toxemia may occur, though I have found it the exception with most of my cases. Its occurrence depends on the resisting power of the patient, the age, the extent of the area irradiated, etc., etc. After few treatments this group of patients will complain of slight headache, chills, slight temperature, and, in some of the mixed infections, it is possible to cause a sudden decline and, if treatment is continued, death may be hastened by the systematic toxemia. On discontinuing treatment the patient, in from twenty-four to forty-eight hours, will gain strength, and treatment may be renewed. It is in this class of cases that metastasis may be hastened, because of the low vitality or normal cell resistance and great overloading of the excretory system. Symptoms such as just enumerated have been observed in non-malignant conditions, such as mixed tubercular infection, scleroderma, etc.

I believe in this group of carcinoma, or breast cancer, we should still continue an impartial study, limiting our cases to those inoperable, and after operation as prophylactic. We can not as yet encourage a patient with a

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localized malignant growth, which is operable, to waste, perhaps, valuable time in trying to effect a cure with the rays. However, there are cases coming to us, as radiotherapists, with such localized operable conditions who will never submit to the surgeon's knife. Such cases have existed before the rays, and to such cases the treatment offers both experiment and hope.

In carcinoma that have been previously operated on and microscopic examination of the growth made, after a series of ray treatment distinct and characteristic changes are seen to have taken place, due to ray treatment only. Such specimens have been submitted to the pathologist, with no history of the treatment given, and he has reported an unusual condition, marked degenerative changes in the cancer cell were apparent, with an obliterating endarteritis present. There were also changes resembling active repair going on in the edges of the growths, with enormous increase in fibrous connective tissue.

In just this field much is hoped for in some pathologic growths. It is possible to change the character of the growths and render them less malignant, and through radiography assist the pathologist in discovering some yet obscure field of research as to the cause of cancer.

SARCOMA.

In this group of cases there were 13; 7 were osteo-sarcomata; 6 lympho-sarcomata; 11 were males; 2 females. They ranged in age from 18 to 68.

In 9 the growths were located in the neck, or on the jaw; 1 on the sternum; 2, the orbit; 1, the ribs. Without exception, all were inoperable, grave, recurrent cases.

Three discontinued treatment, 2 are still being treated, 1 was referred to another operator, and 6 ended fatally. One was discharged, clinically cured, but after four months a rapid recurrence took place with metastasis and death.

In all of the cases reduction of the growth occurred. Large osteo-sarcomatous tumors diminished, each week careful measurements being made.

Relief from pain, also, resulted in every case where metastasis had not taken place, or in cases where post-mortem showed that the growth treated was only secondary to extensive involvement of the bodies of the vertebræ.

From this group of cases so treated, we have given great relief from pain, caused reduction of growth. One case is still under treatment, involving the orbit and jaw. It has been twice operated on; it was referred to me with a slight recurrence in the roof of the mouth, on side of the nose and orbit, with enlargement of glands of the neck. This recurrence has been set back, and the glands have been emptied four different times. The patient goes about, doing light work, in practical comfort.

With the treatment in this group of cases, I feel that a lengthening of the days of the patient and giving him comparative comfort, have been accomplished. My experience with these cases has led me to the conclusion that a combination of the rays and some assisting serum, perhaps Coley's, or, if operable, an early operation combined with these will produce the best results.

EPITHELIOMA.

In this superficial carcinoma we can claim much in advance, with treatment and results over those of the past. In the 37 cases of this carcinoma, 19 are of the rodent ulcer type; all males excepting 2, and ranging in age from 38 to 84. A large percentage occurred in the face and neck. Of this group, 1 ended fatally, 4 improved, but were unable to continue treatment, 2 were referred for operation, and 12 were clinically cured.

This percentage can be equaled or excelled in this variety of carcinoma by many present, and in a large number of cases we must admit that superficial epithelioma has been, and is still being cured by long tested methods of treatment; yet the results obtained by a combination of the ray treatment, with curette or mild arsenical paste, far surpass those of any other known treatment. With a curette, I removed the elevated hardened borders of the lesions, as they will not react readily to the ray. This is a great saving of time to both patient and operator. But there are cases located about the eye, where the ray alone must be depended on, and in such cases this treatment is, without exception, the best therapeutic agent. It is painless in its action, and not only does it eradicate the disease, but so nearly perfect are its healing powers, that the disfiguring scar is more nearly the color of the normal skin, making the scar less apparent.

In treating this disease with the ray, I believe it is necessary to give the longest exposures that can safely be given, to gain the promptest and best results, for it seems possible, with mild treatment, to stimulate growth, and, if long continued, to cause the disease.

Epithelioma about the eye can be safely treated without permanent injury to sight. Conjunctivitis may result, but my experience has been that it readily subsides.

The most obstinate variety of this disease has been that involving the lip, and in many cases after reaching the burning point with the ray I have turned the cases over to the surgeon for complete removal. None of these cases have recurred, and eighteen months have elapsed since some have been discharged. Therefore, with the deep-seated variety of the lip, I think a few weeks' treatment with the ray preceding operation, the most advisable. As has been our past experience, with other treatment, epithelioma of the mucous membrane and that merely of the skin are two far different conditions.

Good results with the ray alone have been obtained in only the superficial variety of the lip. Thus far this treatment of the epithelioma has more to offer by way of effecting a permanent cure than any other known to me.

LUPUS.

My observations in lupus, here reported, will be of 12 cases, covering a period of time from November, 1900, to Jan. 1, 1903. My first case was reported Feb. 6, 1901 *(Medical News)*, treated and cured by the ray alone.

While my experience has been the same in this disease as that of other operators, I report these cases especially to show the permanency of the results, as some have been discharged more than two years.

Of the 12 cases, 5 were males, 7 females; ranging in age from 14 to 74. Six were located in the cheeks; 2 the ears and auditory canal; 1 each on the nose, temple and hand. They had existed from one to twenty-one years.

Of this group, two are still under treatment, one of whom has large areas of the skull bare, and, while much improved, can never be completely cured. The general health of the other case will not permit continuous treatment. Ten of the number have been discharged, clinically cured; no other treatment than the rays being given.

From six months to two years and a half have elapsed since cases were discharged, with recurrence in but

one case. This, under treatment, healed so rapidly that the scar was not properly nourished, therefore the lesion broke out again, but responded readily after but few treatments. All cases are still living and under observation. Eleven of these cases were lupus vulgaris; one erythematosus.

I am, in a measure, warranted in passing final judgment as to the permanence of the cure of this group of cases, in which 93 per cent. occurred in the first two years' work, and, from the far-reaching, slow, natural, healing effect and the beautiful appearance of the scar, which, as a rule, more closely resembles the normal skin than any other scar, certainly this treatment offers more satisfactory results than all other forms of treatment.

ACNE.

In applying the rays to this disease, it has been only in cases of the indurated pustular form, in blonde individuals, which had resulted in disfigurement and pitting of the worst type, that were rebellious to all other treatment.

In this class of cases I have had most gratifying results. There has been not only a freedom from scarring of the new lesions, but if the treatment is carried to the production of an erythema and stiffening of the skin, the peeling which follows will aid in the removal of pits and scars from old lesions. If properly given, this treatment, in my opinion, far surpasses any other in chronic forms of acne. There has been no recurrence in these cases, and no damaging change in the skin structure and, after the desired result has been obtained, I have simply given the patient instructions regarding diet and exercise.

HYPERTRICHOSIS.

Early in my work I experimented with two cases in treating this disease, and have long since discontinued to so treat others, because of the length of time required to safely remove the hair without disfiguring the face; and a recurrence in both cases. While a great deal was gained in using this treatment, as the second growth was only about one-third of the first and was much stunted and bleached (both were brunettes), and the second series of treatments practically removed all hairs, still the danger to the patient and the time it consumes tends to discourage its use along this line.

KELOIDS AND OTHER BENIGN GROWTHS.

In keloids and other benign growths I will cite only one, that of keloid recurring after three operations for its removal, in the scar and stitch holes. After the last operation the incision was held together with oxid of zinc adhesive plaster. Yet, in one week, after apparently perfect healing of the incision, keloids rapidly developed, widening the scar, which was highly colored. Gradually erythema was produced by the ray and keloids were completely carried away, and after erythema had subsided scar became color of the surrounding skin. More than one year has elapsed since case was discharged, and there has been no recurrence.

In this variety of growths, and also verruca, both hard and soft, I have yet to treat a case that has not been as gratifying in its result as the one whose history I have just given.

ECZEMA.

The few cases I have treated have been chronic infiltrated forms of this disease, located on the hands, and the results have been thus far most encouraging. Mild irradiations produce quick reaction of a stimulating nature, then, if treatment is discontinued, infiltration is rapidly reduced. This variety of cases, treated with a combination of the rays and other local applications produces better results than with the ray alone.

SYCOSIS.

My results with sycosis of the most rebellious type, with multiple follicular abscesses, that has baffled all other treatment before the action of the rays was known, have been far beyond my expectations. After but few irradiations abscesses promptly disappear, inflammation subsides, hair falls out and a perfectly smooth, normal skin appears where so long the chronic inflammation had existed. In a few weeks a new growth of hair is seen, with no return of the disease. Parasitic and non-parasitic sycosis is affected alike

The rapid cell proliferation, produced by the ray, led me to believe it might be used to prevent the ugly pitting which follows smallpox. The cases selected were severe ones, during an epidemic in our city, and irradiations were given as soon as possible after their discharge from the hospital, before all inflammation about the affected area had subsided. The patients were all females. In producing a gradual erythema, epithelial cells rapidly filled the forming pit, and soon they were heaped above the normal skin. With mild irradiations for a period of three weeks, until erythema subsided and peeling took place the characteristic scar was rendered so nearly like the normal skin that it would be difficult to discover any trace of the disease.

SCLERODERMA.

Another interesting disease treated by the rays was of scleroderma, and the only one in my experience so far. It occurred in my hospital work.

CASE 1.—A young man, 22 years of age, of Irish descent, general health always good. His barber discovered that the skin of his face had no elasticity, and a general examination was made.

The same hardened condition was found to exist on neck, arms, chest and abdomen.

When he was admitted to the hospital the patient could not smile or turn his head. The case excited the interest of nearly every member of the staff.

Treatment, as first outlined, was inunctions of olive oil, tonics, and thyroid extract. These were given for weeks, with apparently no improvement.

Ray treatment was then suggested. The arms were first irradiated and after few treatments the thickened and hardened skin began to separate from connective tissues. New locations would be tried, with the same results, though there was a slight tendency toward recurrence in location first treated, yet never to the extent of the first condition. After a series of three irradiations of same locations, the patient was sent to a warmer climate and resumed work. If any recurrence appeared it was very slight, and remains so to date.

In this case marked malaise could be produced by exposing large areas to the rays to such a degree that the patient would be confined to his bed, but after a discontinuance of the treatment for three days would again be active and treatment was resumed.

NON-DERMATOLOGIC.

In the general hospital work the ray treatment is becoming of great value, a most powerful general tissue stimulant, for all forms of retarded healing, sloughing flaps after amputation, varicose ulcers, painful bone conditions, painful adhesions after abdominal operations, etc., etc. Old chronic ulcers that have existed for years can be assisted to rapid healing with no other treatment and but few irradiations.

TUBERCULAR GLANDS OF NECK AND OTHER LYMPHATIC ENLARGEMENTS.

There were five cases of tubercular glandular enlargement of the neck which occurred in cases with distinct tubercular history. Three were absolutely inoperable, because of the extent of the glands involved, and two had recurred after operation.

CASE 2.—The first was a male, 21 years of age. He had been operated on five times in five years. The glands enlarged in February of each year. He was referred to me by the surgeon under whose care he had been. At this time glands had developed in the wound of the last operation before healing had taken place, with other enlarged glands on both sides of the neck; two were discharging sinuses, and there were ugly scars from previous operations. After a few weeks' treatment with the ray, the glands emptied completely, wounds healed promptly, sinuses closed and scars of five different operations were almost completely carried away and bleached the color of the normal skin. The patient has passed his critical season; this year (the first time in five years) absolutely free from any recurrence.

CASE 3.—Another operable case was that of a female, aged 24, suffered with a discharging gland, also an ugly scar, attached to the hyoid bone and made more conspicuous by the motion in swallowing. After six irradiations, a strap of adhesive plaster was placed over the gland and sinus to prevent motion and opening of the sinus. Healing took place in six days. Six months have elapsed since this treatment was given, and there is, as yet, no sign of recurrence.

In the other operable cases, after ten days' treatment the glands were completely reduced.

In the two inoperable cases, the necks have diminished about two-thirds in size and, as they have caused no further trouble and both patients are at work, they do not see the importance of further treatment, so it has been discontinued.

My experience with these cases has been as gratifying as with any disease yet treated. If such glandular enlargements can be slowly emptied in nature's own way, radiotherapy may have the preference over operative interference, removing some of the glands, thereby throwing more work on the remaining ones, which are more liable to become enlarged.

TUBERCULAR JOINTS.

CASE 4.—There are two cases under this head which I would like to report. One, tuberculosis of the knee joint, with tubercular history and other tubercular complications. The condition had existed for four years. There was thickening and induration of the joint, distinct rice bodies in a small amount of fluid could be felt. Patient was able to get about for only a short time, when the leg would give out completely.

With intermittent periods of a week, irradiation was continued through five months, when patient was discharged clinically cured; deposits were all carried away, except slight thickening; pain and tenderness completely relieved, and the patient was able to get about all day without discomfort. He had had everything in the way of treatment, except resection.

CASE 5.—The other case was one of tuberculosis following an injury to the bones of the hand. Large areas of dead bones could be felt with probe, and there were four discharging sinuses. With irradiation, sinuses all healed, pain and tenderness disappeared and there was fairly good motion. Patient was constantly watched by his surgeon, who was ready to scrape the bone, but this was not necessary.

Dr. John B. Murphy of Chicago reports similar cases, with good results, in tubercular granuloma, or Pott's disease.

One other result in radiotherapy and a condition which has caused probably all of us more or less anxiety is dermatitis or burn.

In many of the rapidly recurrent cases of cancer the best results are obtained by powerful stimulation, even burning if necessary. A year ago I was giving such cases only one short exposure a day, while now I give two shorter treatments daily for a week or ten days. In treating such a patient it is necessary, in fact most important, that he be told at the start what to expect, so that he may be prepared when the dermatitis appears and not be frightened into giving up the treatment and consulting another physician who is not familiar with the action of the ray. The news of a terrible burn soon spreads, and injures your reputation as an operator, when, in reality, the result obtained is the desired one. This case, I am happy to state, was not one of my own, but was referred to me for diagnosis.

The patient was a male, 74 years of age; general health, good; no history of cancer in family, but gave history of blood poison, resulting from the prick of a rose-thorn, on the hand. After acute symptoms of poison subsided, the wound refused to heal, though a similar lesion on the leg healed promptly. He was advised by a surgeon to have the rays applied to the ulcer, then about the size of a half dollar. Long exposures were given, and after the fourth, dermatitis appeared, and lasted a month, with slight improvement in the ulcer. Treatment was resumed, and after the eighth exposure dermatitis again occurred. The hand was greatly swollen, and very painful, with a gradual increase in the size of the lesion and increased pain.

The patient was first brought to me Dec. 14, 1902. The hand was then photographed. The ulcer had no appearance of epithelioma. It looked most healthy, with bright, shelving edges. There were areas of bone and tendon exposed. The condition of the skin about the ulcer was that of dermatitis, broken and parched in appearance. A static production of the ray ten inches from the ulcer produced almost instant irritation. Amputation was advised, and the patient made a good recovery.

Microscopic sections were taken from different areas of the ulcer. These revealed squamous epithelioma, with most unusual increase in the fibrous tissue which the pathologist attributed to the action of the rays and the condition, to him, was a new one.

I deem this case idiosyncratic to the rays. The mildest medication caused instant burning.

There was no sugar in the urine, and from previous history, clinically, it was not an epithelioma.

In conclusion, conditions demanding a long series of treatment with the rays, overstimulation invariably occurs if periods of vacation are not given. It develops in the old and paralytic more quickly than in the middle aged or young. The most gratifying results may be obtained in radiotherapy by the operator who carefully studies his apparatus, the tube he is using and the effect of the ray on his patient; yet, on the other hand, if he neglects this strict attention to every detail, or leaves his work to an inexperienced assistant, disappointment and failure will be the outcome.

DISCUSSION.

DR. C. E. SKINNER, New Haven, Conn.—Dr. Varney's paper and the conclusions he deduces from a clinical experience which accords very closely with all who have been using the *x*-ray in these conditions are very valuable. There is no point on which I saw occasion to disagree with him, but he did not mention the effect of the *x*-ray on the healing process in fresh operation wounds. As a rule the *x*-ray is considered stimulating to fresh wounds, but occasionally we get cases where the action would appear to tend toward retardation of the healing process. Two such have come to my notice. One was an amputation of the breast for fibrosarcoma, where we also removed the axillary glands which were involved. The rays were applied immediately after the operation, and after about

four applications the tissues took on a dark appearance resembling gangrene. The rays were immediately suspended and not applied again for two weeks. Meanwhile the clots which had formed under the flaps did not absorb, and it was necessary to take out some stitches and remove them. It took this case three weeks to heal when it should have healed in ten days. Another significant case was related to me by Dr. M. M. Johnson, Hartford, Conn., who had a patient with a carcinoma of the breast, which he rayed for three weeks previous to operation. At the time of operation he observed that blood did not spurt from the arteries as it ordinarily does, but merely flowed, as when a vein is cut. All these facts are significant of the conclusion that the *x*-ray exercises an influence on the circulatory function whereby the blood supply is lessened, and whether or not we are sometimes going to get into trouble with gangrene when we ray freshly-cut surfaces I think is a problem worth bearing in mind.

I would like to contribute a little to the therapy of the *x*-ray by exhibiting some photographs of a case of ichthyosis, occurring on a boy aged 15. When he was two weeks old ichthyosis began to appear and has been present ever since, the areas affected having increased. The case came to the clinic of the Yale Medical School and was exhibited before the New Haven Medical Society by Professor McDonald, the dermatologist of the institution. My assistant in radiotherapy, Mr. William W. Herrick, New Haven, was present at the meeting and saw the case. It occurred to him at once that if the *x*-ray could influence malignant epithelioma, would it not also be capable of influencing benign epithelioma. Professor McDonald consented to the trial being made and Mr. Herrick rayed one hand while Dr. McDonald treated the other hand with green soap. This treatment was begun about ten weeks ago. Mr. Herrick will report the case in full later on. The credit for the conception of the idea that the *x*-ray might be of benefit in this case and for the work actually performed belongs to him. But he has courteously permitted me to bring the case to your notice at this time.

The photographs show the conditions before and after treatment. The layers of scales on the hands and feet were half an inch thick. The right hand was rayed, the left hand treated with green soap. The back of the right hand is now perfectly normal, the scales have entirely disappeared from the backs of the fingers and the greater part of the inside of the hand. In the left hand, treated with green soap, no change has taken place except that a small portion of the scales here and there has come off. Another noticeable fact is that where the scales came off of the right hand, treated with the rays, no irritation followed, the skin appeared pink and normal and soft. Where the scales came off from the left hand, by the action of the green soap, the skin underneath was white and presented the appearance of maceration. Immediately after the sloughing of the scales on the left hand the skin which was exposed thereby would harden and crack, and the hand is now rigid. He can not use it because of the pain excited by stretching the hardened cracking integument, while the right hand is perfectly pliable and flexible. Although this case at the present time is more a curiosity than a demonstration, yet the results are significant from a therapeutic standpoint and give ground for the hope that something of use to the sufferers from ichthyosis may be gained in the future from *x*-ray therapy. I will say in closing that this is the first time within the memory of the patient that any portion of his body which was affected by the disease has become free from the characteristic epithelial accumulations.

DR. JOSEPH ZEISLER, Chicago—This subject was up for discussion a year ago, and without doubt it has been discussed since again and again. I have put myself on record with my personal experiences in radiotherapy in a paper which I read last September before the American Dermatological Association. We are living in a period when we may expect every few months from various observers comprehensive papers such as Dr. Varney's, showing the effect of the rays in all sorts of conditions. Whoever works with the rays will continually develop a justifiable enthusiasm which will prompt him to publish his reports, and I look on the report of Dr. Varney in that light. On the whole I agree with everything he has said, and shall be the last to doubt the results he has reached. I was rather surprised to hear Dr. Varney suggest the removal of the hard edges of an epithelioma with the curette first and the use of the rays afterward. It seems to me this would antagonize the principle of radiotherapeutic measures and would turn patients from the treatment by rays, because they do not care to have a cutting operation done. The fact is, any epithelioma on the surface can be removed by the rays alone without any other measures, if the proper method is pursued. It is by no means a tedious affair. In my experience, which covers perhaps thirty cases of epithelioma of the skin, 13 to 14 applications were always sufficient to remove our epithelioma.

In regard to the cases of acne I would suggest to the Doctor that if he will extend his field of work to all sorts of acne he will be as much surprised at the result as in the indurated variety. The treatment by radiotherapy of all forms of acne has come to be my first choice. The results can not be compared to any other treatment, and it makes the internal treatment of acne almost superfluous.

I quite agree with Dr. Varney as to the difficulties in cases of hypertrichosis. At the same time I have had positive success with several cases, which have now remained free of hair for over a year. No one should undertake to remove hair with the promise that its removal would be permanent. It will return, but by repeated exposures, frequently before the new growth has started up you can keep the capillary blood vessels in a state of paresis, such as is responsible for the loss of hair.

In this connection I would point out one feature we want in future publications of this kind—not to discredit Dr. Varney's contribution but to ward off similar papers in the future. What we want from now on are reports on *x*-ray treatment after the observation of the respective cases for a year or two. Sometimes we have marvelous effects in psoriasis. I can clear any patch up in three applications, but in a few weeks the psoriasis returns. We want to know under what conditions this treatment offers permanent results. That it offers temporary results we know, but it seems to me that from now on we should only report results which allow us to look back for a period of several years.

DR. L. DUNCAN BULKLEY, New York—I wish to say that I am foolishly enthusiastic about some results I have obtained with this method. A patient in the skin hospital had her foot so affected that it was scraped a dozen times under ether, scraped down to the bone, and it would heal up for a month or two. Everybody who had seen her had tried everything they knew of for her relief, but she was crying with pain, and sometimes she used several grains of morphin, the pain was so great. A dozen or so applications of the *x*-ray cleared up everything entirely from her feet so that she could at once be up and around the clinic. It was a marvel to me. It exceeded anything I could have imagined.

I think it is interesting to mention our methods as to time, as to distance, as to the revolutions of the machine, and give some idea of the strength we use. This would help us all. I burn some few cases mildly. An epithelioma is better to be burned mildly than not. As to scraping, I think it is desirable, as it saves several applications of the ray.

DR. R. R. CAMPBELL, Chicago—Dr. Zeisler asks for data that have existed some months, and I think I can supply this as regards one disease. I believe I was one of the first to use the *x*-ray in the treatment of acne and reported some 15 cases in THE JOURNAL of the American Medical Association. Some of these cases have now gone on for almost two years without recurrence of the acne. In all of these cases all treatment other than exposure to the *x*-ray had been absolutely thrown aside and the action of the *x*-ray depended on entirely for the results obtained as reported in that article.

There is one disease in which I believe it is imperative to burn, at least in my experience it has appeared so. In three cases of tuberculosis verrucosa cutis which I have treated with the *x*-ray I could not get a semblance of a result after re-

peated exposures until I made it a point to burn. After the burn had been obtained the disappearance of the disease was very prompt. In cases of acne, of lupus, of hypertrichosis, I have not found it necessary to burn, nor have I yet produced in any patient a burn in which my efforts were not bent particularly in that direction and in which the burn was sought. As Dr. Varney has said, we must recognize the idiosyncrasies which exist in different people. This is the rule regarding the *x*-ray as well as any other therapeutic agent we may use.

In cases of epithelioma treated with the *x*-ray, which have been operated on—I am speaking of cases of epithelioma which fall into the hands of the dermatologist who finds it necessary to resort to surgical procedures—the time to institute the treatment by the *x*-ray is not after the tissue has hardened, but within two or three days after the operation has been performed. I think that is not only the case in epithelioma, but it is the case in all malignant diseases. In cases of deeper and malignant troubles, however, I question very much the ultimate efficacy of the *x*-ray. We do get temporary results. But it is a question in my mind as to whether or not we promote a metastasis, and when reaction does take place the growth goes on with a rapidity that has been unknown to us after any other procedure.

DR. G. P. EDWARDS, Nashville, Tenn.—One point touched on by Dr. Bulkley I wish to emphasize particularly, that is a more accurate technic of *x*-ray therapy. It is the custom of most of us to use our cheaper non-regulating tubes for treating these skin lesions, because they are cheaper and are not so easily destroyed. I think this is a mistake. I think we should know exactly the condition of our tube and what it is doing. In this work we should be able to maintain the same degree of exhaustion for the same class of cases. The variety of effects we are getting in these cases is not so much due to the idiosyncrasy of the case as to the idiosyncrasy of the operator in using tubes of different degrees of exhaustion. It has been my privilege to study this particular point, so when I do get a result I know how I got it.

DR. A. H. OHMANN-DUMESNIL, St. Louis—The important point in radiotherapeutics is technic, also the proper lamp glass, whether hard or soft. I have had a very unfortunate experience in the effects of radiotherapy. A young lady of Memphis, Tenn., was treated by Dr. Lassar of Berlin, and when I saw her she had an *x*-ray burn nearly healed, but with a very thin scar all over the face. She came to me to be relieved of the scar. I have seen a case where the foot had not been covered by lead in which there was an affection of the metatarsal bones. Those are cases I think it is well to speak of with this idea only, not to declaim against *x*-ray therapy, but as a reminder to all to be careful in their technic in every detail in order to avoid such consequences, which are difficult to ameliorate or make completely well, some of them requiring months and months. The case of injury to the metatarsal bones has been of nearly nine months' duration, and the man can not walk with ease yet. This is not encouraging to the use of *x*-ray therapy. You may say it shows great negligence on the part of the operator, but he should not have been negligent, and this part of the technic should not be forgotten.

DR. J. H. DUNCAN, St. Louis—I have had considerable experience with the *x*-ray treatment in my dermatologic work, and have had my share of success, not only in new growths, but in ordinary skin lesions. The longer I use the ray the more careful I am in the selection of my cases, and I am afraid if we are not careful before long the dermatologist will be relegated to the *x*-ray specialist, and the real diagnostician, the scientific dermatologist, will have to take a back seat. I hope, then, that we will not attempt to treat all of the skin lesions we come in contact with by the ray, but select our cases and rather use the *x*-ray as an adjunct to other treatment. While we know, for example, that the *x*-ray may relieve permanently a new growth, realizing the length of time it may take to produce that result, I am of the opinion that curettement with the application of a plaster, or some kind of operation, then the healing of the wound by the *x*-ray would not only facilitate matters, but would probably make a more permanent cure. I was, and am, to a large extent, enthusiastic in this matter. I have had success in cases of acne, infiltrated thickened chronic eczemas, hypertrichosis, etc. My experience with the ray has been most gratifying in breast lesions and in the treatment of epithelioma or cancer of the lip. I have had experience in the treatment of a small affair no one has mentioned, but it was a most annoying affection. It was a case of verruca, 30 or 40 warts on the back of the hand. The result in that case was satisfactory. Of course, we would not use the ray for one or two warts, but the entire back of the hand was covered with verruca.

We can all give our experiences in these things, but let us not get too enthusiastic about the *x*-ray to the exclusion of other old and well-tried remedies.

DR. J. B. GUTHRIE, New Orleans—There is a little point in *x*-ray technic that I worked out and subsequently found mentioned, but no details given, in Williams' work. The feature of the method I refer to consists in the simultaneous use of two or more *x*-ray tubes connected to the same generating source, coil or static machine, as the case may be. I have found this procedure of especial value in the treatment of cutaneous lesions when, as is often the case, they are widely disseminated or located on opposite sides of the face, rendering treatment by a single exposure impossible. Where two tubes are run at the same time two exposures of the same patient are rendered unnecessary, for all of the diseased area receives treatment at the same time.

I have a tube stand with arms of the usual double-jointed type with two arms instead of one. Each of these arms carries a tube which is connected to the proper terminal of the machine. If we call the tubes A and B, the connections are as follows: The cathode of tube A is connected to the cathode of the generator, and the anode of tube B is connected to the anode of the generator. The anode of tube A is then connected with the cathode of tube B by a piece of flexible wire. This puts the tubes in series, and connected in this way each tube takes the current it needs and allows the excess to pass on to its fellow. It is not essential that both tubes be of the same vacuum, although the tubes operate best when this is the case. A high tube and a low one will both glow provided that the aggregate resistance of the tubes does not exceed the sparking capacity of the generator. It is necessary to use a spreader that is long enough to prevent sparking across from one wire to another. When only one of the tubes is to be used the other is short-circuited by connecting both wires leading to it to one terminal. It is sometimes desirable to have a high tube and a low one on the stand. Then when one tube is in use the other swings out of the way.

The device I have described has been very useful to me, and I consider it a time-saver. I have never utilized it to treat more than one patient at a time, but this is possible. It is most useful in skin work for the reasons I have named. I mention it with the hope that some of the members of this Section will find use for it also.

DR. J. N. ROUSSEL, New Orleans—I want to suggest the use of oxygen in the treatment of parasitic skin diseases by the *x*-ray. In my experience oxygen in spray, which we might obtain either by means of a bag of oxygen or the static breeze, accelerates the action of the ray materially in the treatment of ringworm and sycoses.

DR. H. R. VARNEY, Detroit—In reply to Dr. Skinner's inquiry as to the action on the normal tissue, I would state that as far as I have been able to determine it is a specific cell stimulant, producing a stimulation that is characteristic in itself, an inflammation that exists for days and weeks, and even months.

In answer to Dr. Zeisler regarding the scraping of the hard epithelial border, I do that in cases where they wish to gain time. I hope I have not appeared too enthusiastic; Dr. Zeisler's criticism is a timely one. In my paper I have reported only one case that has occurred in my work since the first of January. I have been operating for two and a half years and have given about ten thousand exposures.

I believe I mentioned verruca in my paper. I have had some very interesting cases in that line with very gratifying

results. They, of course, sometimes disappear like magic with no treatment, yet are troublesome in certain localities. The multiple tube I have never used, but can readily see that in acne and other conditions we would gain time with it.

Dr. Bulkley's suggestion for more knowledge regarding technic in this line of work would be of great value to us all if it could be given with some definite rule; but as operators, we all know that there is no definite dosage in giving the ray, as no two tubes produce the same ray; no two patients react the same to the ray; nor does the disease under treatment. Therefore, each operator must, to be successful, establish his own technic, by carefully studying his apparatus, the tube he is using, the patient under treatment and the disease being treated.

CLAMP FORCEPS FOR REMOVAL OF NASOPHARYNGEAL TUMORS.*

E. FLETCHER INGALS, M.D.
CHICAGO.

The report of the following case is made to illustrate the advantage of having a suitable clamp to aid in the removal of nasopharyngeal tumors by the galvano-cautery and to call attention to an instrument which I believe will be found advantageous in very many cases. It would also aid in the removal of some growths by the cold-wire snare.

The patient, E. J., a young man 22 years of age, had been troubled with partial occlusion of the nares and the necessity for frequently clearing the throat for about five years. Latterly, there had been complete occlusion of the left naris, but the right was permeable a part of the time. There had also been frequent bleeding of the nose. The patient's personal and hereditary history gave no clew to the cause of the trouble. The thoracic signs were normal. On examination of the nares I found the right side three-fourths closed by swelling of the inferior turbinated body; the left side was free at its upper and front part, but was completely closed posteriorly by a growth in the nasopharynx.

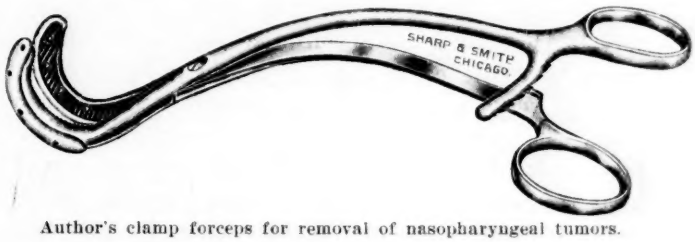
On rhinoscopic examination, I discovered a fibrous tumor with a broad base attached to the vault and posterior part of the nasopharynx, measuring about 1½ inches in length, and about ¾ of an inch in its other diameters. This growth three-fourths filled the nasopharynx. Its surface was smooth and marked by several enlarged blood vessels. It was hard to the touch and firmly attached, with but a slight groove at the lower part between the tumor and the pharyngeal wall, so that a wire could not be made to hold.

The left naris and the nasopharynx were anesthetized as thoroughly as possible with cocain and through the left naris I passed into the nasopharynx and brought out at the mouth, a No. 5 soft male catheter, both ends of which were then held to the left. A similar catheter of different color was next passed through the same naris in like manner and both of its ends were held to the right. The two ends of a long No. 20 platinum wire were then introduced into the ends of the catheters that came out of the mouth and passed back until they came to the turn in the nasopharynx. The catheters were then drawn out through the nostril until the ends that protruded from the mouth were out about four inches nearer to the lips. This caused the wire to make the turn in the nasopharynx, after which both ends were easily pushed in until they came out of the catheter through the nostril. I then passed the clamp-forceps through the mouth, into the nasopharynx and crowding upward and backward grasped the tumor firmly and locked the clamp on its base. Next the loop of wire protruding from the ends of the catheters out of the mouth was carried under the handles of the forceps and drawn back into the mouth so that it must of necessity slide up behind the blades. The catheters were then removed, the wires being carefully held so they could not become crossed in the naris. Next, these wires were slipped through the tubes of a galvano-cautery ecraseur and the electrode and wires were made fast to the handle. The loop was now made tight on the tumor by turning the rachet on the handle.

I then told the patient that as we burned off the tumor it would necessarily cause pain, but I wished him to stand it as long as he could, and that I would cut off the current the instant he requested it. With this understanding, the current was turned on, the loop heated and allowed to burn into the tumor for about three seconds when at the patient's signal the current was cut off. He was allowed to rest for a minute or two and then the current was again turned on in the same way, the rachet being tightened in the meantime. Thus I proceeded burning into the base of the tumor about a sixteenth of an inch at a time until it was completely cut off, without very great discomfort to the patient and without hemorrhage.

In this case the clamp was of signal service because it would have been impossible to engage the tumor in the galvano-cautery loop without it. I believe that the instrument will greatly facilitate the removal of many of these tumors and will make the operation more thorough, even when they might be removed without it, for with it the tumor can be secured at once and the loop of the snare, when carried under the handles and drawn back into the mouth, must necessarily engage the base of the tumor.

The nasopharyngeal clamp forceps has the general form of Loewenberg's nasopharyngeal forceps. The blades, however, are longer and much more curved. The



Author's clamp forceps for removal of nasopharyngeal tumors.

curved portion, which is two inches in length, is so shaped as to accurately fit the vault of the pharynx in the ordinary adult; each blade is protected at the back and outer side by a piece of ivory, so that a short circuit will not be made when the galvano-cautery snare is applied, and the roughened faces of the blades are each provided with four short sharp spikes to prevent slipping. When the instrument was first made the curve was not so great as at present and the blades were not provided with the spikes. I found that it did not accurately fit the vault of the pharynx, and furthermore, that it would slip when the tumor was grasped. The present form appears to meet the conditions perfectly. The handles are provided with an arrangement for locking, similar to that used with many other forceps.

34 Washington Street.

* Read at the American Laryngological Association, Washington, D. C., May, 1903.

Sudden Blindness After Paraffin Injection.—Dr. Lee Maidment Hurd reported to the Section on Laryngology and Rhinology of the New York Academy of Medicine on May 27 a case in which there had been instant loss of vision following a paraffin injection for nasal deformity. The patient was a man of thirty-three years without any history of syphilis, whom he had given, some months previously, two or three injections of paraffin with the object of improving a nasal deformity. The man returned requesting another injection, and while this was being given he became blind. Ophthalmoscopic examination revealed the typical appearance produced by embolism of the central artery of the retina. While the possibility of this accident being a mere coincidence was freely admitted, the opinion seemed to prevail that it was directly connected with the paraffin injection. The blindness is permanent.

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LECITHIN AND ITS THERAPEUTIC USE.

Although lecithin is a constant constituent of all kinds of cells, and therefore an ingredient of all foods, the manner in which it is absorbed and utilized is unknown. Its constancy in the cells, both of animals and plants, and the large amounts that exist in the central nervous system, are sufficient evidence that it must play some important part in life processes, but what these are is little more than surmised. On the other hand, its composition, although very complex, is well understood. Shorn of technicalities it is a fat which has had one of the three fatty acid groups replaced by phosphoric acid, to which is attached a nitrogenous body, cholin. It is the presence of this last group that makes the substance of particular interest, for the body cholin, although not very toxic itself, is easily converted into an extremely poisonous substance, neurin. It may also be oxidized into a very poisonous body isomeric with muscarin. The changes that lecithin undergoes when taken into the alimentary tract are far from clear. That it is absorbed in the same manner as other fatty bodies is possible, but, on the other hand, the presence of the cholin-phosphoric-acid group may cause it to behave in an entirely different way. In other words, it is not known whether the lecithin that is found in the tissues comes directly from the food, or is built up by the cells where it is found.

As to its functions, the nature of its composition suggests that it is not merely a source of energy, as are the fats, but rather that it plays an important rôle of some kind. For this idea speaks also the fact that it is most abundant in the brain and in egg yolk. The significant fact that the substances that act as anesthetics are those in which lecithin and fat are soluble, as chloroform and ether, led Hardy to build up his theory of the importance of lecithin in the conductivity of nerve impulse. When the lecithin is dissolved by the anesthetic, or at least has its physical condition altered, the nerve fibers can no longer transmit impulses; when the anesthetic has been eliminated the lecithin returns to its ordinary conditions and nerve function is restored. In another direction its importance has been shown by Kyes. He found that red blood corpuscles contained something that acted in the same way in causing hemolysis as did the important and mysterious "complement," and later it developed that this active constituent of the red corpuscles was lecithin. The greatest importance of this observation lies perhaps in this, that we have at last a definite body of known chemical nature and structure that plays a part in the reactions of immunity. And this, we may say, comprises practically all we know of the functions of lecithin.

It is quite possible that there are some harmful conditions brought about by lecithin through the toxicity of the nitrogenous bodies that it yields on decomposition. Nesbitt has demonstrated that cholin, and probably neurin, are produced in the intestinal canal during the fermentative processes of intestinal obstruction in animals fed on yolks of eggs. Therefore, it may well be that the lecithin of food is an important source of the poisons that are responsible for intestinal autointoxication; for there are few substances more poisonous than neurin, and 0.5 gram of the cholin is a fatal dose per kilogram of rabbit. When nervous tissue is destroyed lecithin is decomposed to a marked degree, as Mott has shown, and it is possible that with great nervous exhaustion there may be some intoxication with cholin and neurin derived in this way. A resemblance between the symptoms of neurin poisoning and those of the intoxication of fatigue has been observed by some.

With such a fragmentary knowledge as this of the metabolism and uses of lecithin it is evident that the recent development of therapeutic administration of lecithin is not altogether the result of applied science. Rather, the use of lecithin is suggested by the facts at hand, and the rest is empiricism. The greater part of the experimental work has been done by the French, and numerous reports can be found in the Comptes Rendus de la Societé de Biologie of the past year or more. They generally state that young animals fed with lecithin greatly outweigh the control animals; also, that animals infected with tuberculosis and given lecithin, either by mouth or subcutaneously, live longer than the controls. As yet there seem to be too few clinical observations to warrant the drawing of conclusions. The use of glycero-phosphates, which has long been tried, is, of course, based on the presence of this radical in the lecithin of the nervous system. A great many preparations of lecithin are being placed on the market, and we desire to call attention to the following points: First, that there are a number of different sorts of lecithin, depending either on the kind of fatty acid radical that enters into the molecule, or, as W. Koch has shown, on the nitrogenous complex which varies in different lecithins. (Koch has proposed the name *licithan* for the group.) Therefore, if one's observations are to be valuable it is well to know at least the source of the lecithin employed. Secondly, that in such foods as calves' brains and yolk of egg we have a rich supply of lecithin in a natural condition. Walther has found lecithin in the chyle of the dog, so it is probable that some at least is absorbed, but there is no evidence that the methods used for extraction increase its absorbability. Undoubtedly a good way to administer lecithin, if not the best, would be by modifying the dietary. And, lastly, that the ingestion of considerable quantities of lecithin or of

foods rich in lecithin may not be entirely without danger, since at least during intestinal putrefaction, if not under ordinary conditions, highly toxic material may be formed from it.

TOXICITY AND IDIOSYNCRASY.

Nothing is more disconcerting for a physician than to have a remedy that he has given in perfect confidence of its harmlessness produce annoying symptoms or perhaps serious toxic effects. Needless to say there are cases of this kind being constantly reported, however, and only a previous knowledge of the special susceptibility of the patient will absolutely protect the physician from such occurrences in his practice. It is well known, of course, that this idiosyncrasy for certain drugs is often a family trait and, consequently, when certain substances, as quinin, for instance, are prescribed it is advisable to ask if the patient knows of any bad effects that have occurred in near relatives. The number of drugs that may produce untoward and unintended complicating symptoms is growing with the enlargement of the materia medica, and especially with the increased use of synthetic products. Some of the recently reported incidents of this kind, as they may be gathered from Squibb's Ephemeris[1] for the present year, are worth noting. Antipyrin is one of the drugs that is well known to produce unpleasant symptoms. Most of the cases reported, however, are of European origin and serve mainly to show how much larger doses of the drug are employed with comparative impunity than are usually considered advisable with us. Simon and Mahu of Paris report a case of toxic hemoglobinuria, following the administration of antipyrin, but as the young girl had been given 9 grams, nearly 140 grains of antipyrin, in four hours, this is not so surprising. Doses as high as 60 to 90 grains during the day are not unusual on the Continent, however. Professors Curschmann and Zweifel of Leipsic, thoroughly conservative authorities, administer from 2 to 4 grams, 30 to 60 grains of antipyrin in twenty-four hours and obtain with this more satisfactory results in the treatment of the fever of puerperal septicemia than with any other remedy. They not infrequently see the cutaneous rashes peculiar to antipyrin administration in certain patients, but they do not consider these a contraindication to the continuance of the drug.

Certain of the newer synthetic products have come under the suspicion of occasionally producing unfortunate symptoms during the past year. Several reports of this character in regard to heroin have been made. Dr. Campbell of Liverpool, who had been in the habit of using heroin hydrochlorate in doses of one-sixth of a grain with great satisfaction in the treatment of laryngeal cough, recently had an alarming experience with a twelfth of a grain dose. It has been found that heroin may produce a habit for which the name heroinomania has been coined, so that recent suggestions for its use in the treatment of morphinomania will have to be taken with great caution. Aspirin, a new salicylic compound for rheumatism, has given, on one or two occasions, unexpected symptoms of collapse. Trional and sulphonal continue to be reported occasionally as causes of severe prostration and serious anemia when their use has been continued for a considerable period without intermission. Some very interesting cases of poisoning from the use of excessive quantities (in each case a whole nut) of nutmeg are reported. The substance was employed in places so distant from each other as England and Australia for the purpose of producing abortion. Nutmeg is well known as a sedative, especially in Germany, and is often used as a mild hypnotic, being liberally dusted over night drinks for this purpose. There seems to be a widespread tradition as to its power as an abortifacient somewhat resembling that current in many parts of Europe with regard to the effect of phosphorus for the same purpose. The symptoms of nutmeg poisoning are those of a narcotic, though collapse, with muttering delirium, clammy extremities, almost imperceptible pulse and somewhat dilated pupils that react feebly to light are reported. The domestic use of nutmeg as an emmenagogue and as a hypnotic may occasionally, in susceptible persons, give some of these symptoms without more serious effects. Gangrene, especially of fingers and toes, continues to be reported as the result of applications of carbolic acid, notwithstanding the many warnings in this matter. Even such dilute solutions as 3 to 5 per cent. may produce gangrene if applied as a wet dressing. It is conceded now that this effect is due to a special susceptibility of the patient, rather than to the toxic effect of the drug. It has been noted that this susceptibility is occasionally a matter of heredity and that the physician about to employ carbolic acid in minor surgery can sometimes save himself from unexpected results by questioning the patient as to his heredity in the matter. Patients whose vasomotor apparatus is already in a disturbed condition, who have what is known as dermographia, or who suffer from Raynaud's disease, or Weir Mitchell's disease, even in mild form, must be guarded more carefully than others against the effects of carbolic acid applied locally. Progress in neurology in recent years shows that these affections are much commoner than used to be thought. It is said also that turpentine produces its undesirable dermatitic effects much more readily on patients who are suffering from one of these peripheral vasomotor disturbances that have just been mentioned.

It was thought for a time that lysol, the saponified product of coal tar with certain affinities to phenol, might prove a less dangerous substitute for carbolic acid. The poisoning cases reported, however, are more frequent than before. Complications from its local application are not common, but taken internally the drug can be quite as fatal as carbolic acid. Acetanilid has, of course, achieved a bad eminence in the matter of

1. An Ephemeris of Materia Medica, Pharmacy, Therapeutics and Collateral Information, vol. vii, No. 1, E. R. Squibb & Sons, Brooklyn, 1903.

producing untoward effects. Its action in the headache powders so commonly used has brought it more and more to the notice of the physician of late years as a dangerous drug. A number of cases have been reported, however, in which its use locally as a dusting powder has been followed by rather serious symptoms. It usually produces its evil effects when used on abraded surfaces in children or the aged. When employed for the relief of the burning pain of so-called scalding in children it has several times produced affections resembling morbus cæruleus. Pyrogallol, when used locally in skin affections, still continues to be a reported source of toxic symptoms in susceptible individuals.

"SCIENCE, FALSELY SO-CALLED."

In these days of general information, when few subjects are too recondite to be of interest to the general public, it is only natural that popular magazines should take up striking discoveries and utilize them in a more or less sensational way. It is unfortunate, however, when such articles do not convey correct impressions or approximately correct impressions of facts. There is no limit to human belief, and a certain amount of appearance of scientific accuracy goes a long way in carrying on to acceptance grossly inaccurate statements. A correspondent in the *Popular Science Monthly*, a journal which popularizes science in a legitimate way, wrote to ask in regard to certain magazine articles by one Carl Snyder, as to whether they were reliable or not. These articles are of the class of which we speak, very attractively written, with vivid descriptions of alleged scientific truths. We say "alleged" because among a certain amount of facts there are so many inaccuracies that we can not call them scientific truths. This was the view of the editor of the *Popular Science Monthly*, whose answer to the query was in part as follows:

> Mr. Snyder appears not to have had a scientific training; his articles are sensational and inaccurate. This somewhat sweeping condemnation is easily justified. Let us consider the last article by Mr. Snyder that has come to our attention, "The Mechanism of the Brain," in *Harper's Monthly* for May. It is a potpourri of truth, half-truth and falsehood concerning chemistry, physics, anatomy, physiology and psychology. Thus we are told:
>
> > Or, supposing that this special colloid can not be fixed upon as the seat of the highest powers of man, they might be thrown upon that extraordinary and rather hypothetical ether, of which physicists talk so much and know so little.
>
> Within half a column Mr. Snyder passes easily from ether to electricity:
>
> > As there is no nerve action without the evident presence of electricity, it seems probable that nerve action, thought and consciousness, and what in our present ignorance we call electricity, are one and the same.
>
> Physicists may not know all that they would like to know about the ether and electricity, but they know enough not to write nonsense about them.

As an example of a misstatement of facts, the editor of the *Popular Science Monthly* refers to Mr. Snyder's statement as to the great weights of the brains of Byron and Turgenieff, which he gives as authoritatively verified. It can be definitely said that the weight of Byron's brain was unknown, and this is also true in the case of Turgenieff. With such apocryphal data interspersed in the article as alleged facts its value can be estimated. They vitiate the whole thing. Another queer statement quoted is that individuals may measure the size of their own brains and can find the directions how to do so in any good encyclopedia or by applying to the distinguished Professor Wilder of Cornell. In regard to this the editor remarks that, apart from such indications as are given by the size of the hat, the only feasible direction would be for the interested person to commit suicide and let Professor Wilder take the brain weight afterward. As a distinguished social diagnostician has remarked in one of his recent articles, one can not make estimates of capacity from any outside measurements.

While the above criticisms state very clearly some of the defects of the articles mentioned, we could add still others, such, for example, as Mr. Snyder's statement that the brain of the savage and idiot is rather smooth, while that of the highly-developed man or woman is grooved and folded in an extraordinary way. The average reader would certainly get the impression that only highly developed people have convolutions. One would infer that the author had either never seen the brain of an idiot or savage or else he is exceedingly careless in his statements on the subject. Another point for criticism is his allegation that there are only insensible gradations from the ape to the highest type of man. The fact is that there is a tremendous gap and the missing links, for they probably have existed, have not yet been found, and what have been reported as such are very inadequate to complete the chain. The field of scientific research is an indefinite one, and we have only touched on the borders of it here and there. There are ways of making the interested public aware of some of the advances that have been made without the exaggerated or incorrect statements that are so often indulged in. It would be better for popularizers to give out imaginary accounts embodying scientific facts after the fashion of Mr. Wells or more recently of Professor Newcomb than to lay down so-called truths which have so far no known basis. A little knowledge is a dangerous thing, especially if it is incorrect, and, furthermore, what we want in popularized sciences is less assumption and more logically demonstrated and established facts. The cultivation of a moderate amount of scientific skepticism would be an excellent thing for many readers of the statements of popular vulgarizers, for, with the public as with the individual, as was said by a philosopher, "It is better not to know so much than to know so many things that ain't so."

A PATRIOT PHYSICIAN OF THE REVOLUTION.

The *American Monthly Magazine*, the organ of a patriotic society, the Daughters of the American Revolution, in its April issue gives a complete account of Dr. Lyman Hall, one of the signers of the Declaration of Independence. THE JOURNAL has in the past noted the

fact that nearly 9 per cent. of the members of the Continental Congress that settled the question of our independence were medical men of the day, but this does not yet seem to be generally known. Such a man as Rush was sufficiently prominent in medicine and in the early statesmanship of the country to be remembered in both, but Dr. Hall, like Drs. Thornton, Bartlett and Wolcott, is seldom mentioned in his medical professional relations and in connection with his part in establishing the liberties of this country.

The account given of Dr. Hall shows him to have been a very striking character in his way. A native of Connecticut and a graduate of Yale College, he commenced active life as a minister and had a pastoral charge for a short time. He, however, gave up the ministry and taught school, finally taking up the study of medicine. After his second marriage, in 1757, he removed to South Carolina and later to Georgia, where he became one of the most prominent practitioners of the colony. He was also one of the most strenuous advocates of the colonial cause against Great Britain and carried his own county when the rest of the province was non-committal or not active in the cause. In fact, it was probably largely due to his influence that later the colony of Georgia joined the federation and he was one of the delegates appointed to the Continental Congress, to which he had already been elected by his own district. He was three times elected to this body and obliged to abandon his large and lucrative practice and his property, which fell into the hands of the enemy, was confiscated or destroyed. In fact he was obliged to go back to the north on account of the occupancy of the territory by the British forces, but returned a little before the close of the war. He was appointed governor of the province. After his retirement from the executive chair he became one of the judges of the Supreme Court for the county, and shortly after died, on the ninth anniversary of the surrender of Cornwallis at Yorktown, in his sixty-seventh year.

While Dr. Hall never bore arms nor was connected with the army during the Revolution, as sometimes erroneously stated, his service to his country during those critical times places him high in the ranks of those who were the founders of the republic. He was preeminently a physician, though in his versatile career he followed all three of the learned professions. We are glad to notice this biography of one who, while prominent in other ways, worthily fulfilled the function of our honorable profession for the larger portion of his active life, and his memory should be kept green by his medical brethren for all time.

THE MISSOURI AND KANSAS FLOODS.

The floods now occurring in the great Missouri Valley, which are unprecedented for the region and probably as financially disastrous as the reports have stated, have an important sanitary bearing. While the immediate loss of life has probably been somewhat exaggerated, the ultimate effects may be much more serious than at present anticipated. Few people who have not seen the effects of a flood in a thickly populated section can conceive of the unsanitary conditions that are produced. Aside from the breaking up of homes and rendering them uninhabitable, the exposure and the mental effects on the victims, conditions are left that it will take considerable time to relieve, conditions that are seriously threatening the health and general welfare of the community. The choked-up sewers and the consequent impaired drainage after such a flood in any particular community, together with the amount of decomposing matter in every way out of place, require the close attention of the sanitary authorities and their most active efforts. Add to this the lessened resources of the community to meet the conditions and the problem is certainly a serious one. The derangement and destruction of the food supply of so large an area as thus involved is an important matter as regards its bearings on the health. We trust that the authorities, not only local but state, have a full appreciation of the demands that will be legitimately made on them in the immediate future and probably for some time thereafter. It will probably require a considerable period to bring back the flooded sections into their normal sanitary conditions.

THE CHRISTIAN HOSPITAL SWINDLE.

We publish elsewhere the report of the medicolegal committee of the Chicago (Cook County) Medical Society in regard to the so-called Christian Hospital of Chicago, mention of which was made in our editorial columns two weeks ago.[1] Our mail has been flooded daily with circulars of this institution from our readers, but we have avoided saying more than we did in our editorial above mentioned, for the reason that this investigation was going on. During the time of its existence we showed up the old St. Luke's Hospital at Niles, Mich., and it is unnecessary to more than refer to what we published in the past to corroborate the findings of the Chicago Medical Society's committee. This committee is to be congratulated on the result of its work so far, and while it is of special local interest, considering that local men are being used, it is also of interest to the whole profession. One of the most discouraging things in connection with this institution and its predecessors and like enterprises, is the fact that physicians can be so easily swindled. If this were not true, then such schemes would not be paying ones. It would be interesting at this time to know how many of those who bought the old St. Luke's diplomas have them still hanging in their offices. We believe that few of the readers of THE JOURNAL will be found among the list, and we sincerely hope none of them has been so foolish as to invest in this later scheme.

Medical News.

ARKANSAS.

New Graduates.—At the twenty-fourth annual commencement of the medical department of Arkansas University, Little Rock, a class of 12 had degrees conferred on them by Governor Jeff Davis. Hon. W. M. Kavanaugh delivered the address to the class.

1. See THE JOURNAL, May 23, p. 1443.

The New Arkansas Law.—The law regulating the practice of medicine and surgery became effective May 18, and in accord with its provisions the governor has appointed regular, homeopathic and osteopathic boards of examiners. Those from the regular school are as follows: Dr. Charles R. Shinault, Helena, first district; Dr. Oscar E. Jones, Newport, second district; Dr. George V. Poyner, Green Forest, third district; Dr. M. L. Norwood, Lockesburg, fourth district; Dr. Joseph P. Runyan, Little Rock, fifth district; Dr. William Crutcher, Pine Bluff, sixth district, and Dr. Adam Guthrie, Prescott, seventh district. At the first meeting of the board, May 25, Dr. Shinault was elected president, Dr. Runyan secretary, and Dr. Norwood, treasurer. The bond of the treasurer was fixed at $1,000.

CALIFORNIA.

Names Staff.—Dr. Frank K. Ainsworth, chief surgeon of the Southern Pacific Railway, has appointed Dr. Horace G. Cates assistant surgeon of the system, with headquarters at Los Angeles; Dr. George L. Hutchinson, assistant to Dr. Cates; Dr. Ernest A. Bryant, Los Angeles, local consulting surgeon, and Dr. Ernest M. Keys, local surgeon at Alameda.

More San Francisco Graduates.—Cooper Medical College on April 28, graduated a class of 45. Dr. David Starr Jordan, president of Stanford University, delivered the address.——The College of Physicians and Surgeons held its commencement exercises May 21. Dr. Winslow Anderson, dean, conferred degrees on a class of 28, and Prof. Robert E. O'Connell, delivered the address.

Committee to Investigate Tuberculosis.—At the last session of the Medical Society of the State of California, the following committee was appointed to investigate the prevalence of tuberculosis in the state, and to make such recommendations to the society at its next meeting as it may deem appropriate: Drs. F. M. Pottenger, Los Angeles, chairman; George L. Cole, Los Angeles; John C. King, Banning; George H. Evans, San Francisco, and Edward von Adelung, Oakland, secretary.

Personal.—Dr. David C. Barber has succeeded Orville R. Witherbee as superintendent of the Los Angeles County Hospital.——Drs. J. Hamilton Todd, Arthur L. Cunningham and Samuel H. Buteau, have been made members of the Oakland Board of Health.——Dr. Martin Regensburger, San Francisco, has been elected president, and Dr. Frank K. Ainsworth, San Francisco, has been appointed a member of the State Board of Health.——Dr. Frank H. Payne Berkley, is critically ill with typhoid fever.——Dr. Edwin von Adelung, Oakland, has been reappointed health officer.——Colton's new board of health has elected the following officers: Dr. Joseph A. Champion, president, and Dr. F. H. Pritchard, secretary.——Dr. Samuel G. Huff, San Bernardino, county physician for five years, has resigned.

ILLINOIS.

Pana Board of Health Organized.—The board of health met May 20 and elected Dr. Roscoe C. Danford, president, and Dr. Frederick J. Eberspacher, secretary.

Change at Dunning.—Dr. John R. Neely, general superintendent of the Cook County Institutions, Dunning, has resigned on account of ill health and has been succeeded by Dr. Vaclav. H. Podstata, formerly assistant at the Illinois Eastern Hospital for the Insane, Kankakee.

Addition to County Hospital.—The hospital committee of the Cook County Board has decided to erect a special building for contagious diseases to accommodate 150 patients, and a building for the care of children, to accommodate 130. These buildings are estimated to cost $125,000.

Chicago.

Personal.—Dr. G. Morgan Clarke sailed for Germany, May 26.——Dr. G. Paull Marquis has been made assistant surgeon-general of the state, with the rank of lieutenant colonel, vice Dr. Charles Adams, transferred at his own request to the First Infantry as major and surgeon.——Dr. Charles Adams and wife have left for New York and sail for Liverpool June 10.

A Large Class Graduated.—On May 26, the largest class ever graduated from the medical department of the University of Illinois received diplomas from the president of the University, Dr. Andrew S. Draper, who also made the address to the class. Of the 230 graduates, 25 were women. At the annual banquet more than 600 alumni were present.

Faculty Changes.—Dr. Charles S. Bacon has been elected professor of obstetrics; Dr. Andrew McDermid, associate professor of obstetrics; Dr. Frank B. Earle has been transferred from the chair of obstetrics to that of pediatrics, which he shares with Dr. W. S. Christopher, and clinical pediatrics; Dr. Maximilian Kuznik has been made adjunct professor of anatomy, and Dr. D. Lee Shaw, professor of clinical anatomy in the medical department of the University of Illinois.

May Mortality.—The total deaths during May were 2,675; 47 more than the previous month and 546 more than for May, 1902. This is equivalent to an annual death rate of 16.69 per 1,000. Pneumonia caused 646 deaths, nearly twice the number of deaths during May, 1902, from this cause; consumption, 264; violence, 175; heart diseases, 193; nervous diseases, 151; nephritis, 147, and acute intestinal diseases, 113.

Smallpox in May.—During the month 45 cases of smallpox were discovered and removed to the isolation hospital. Of these 39 never had been vaccinated; 6 had old, imperfect marks, said to be from vaccination in childhood, and 15 were unvaccinated children under 6 years of age. There were 7 deaths, and 35 cases remain in the hospital, at the close of the month, as against 47 May 31, 1902, during which month there were 57 cases removed to the hospital.

MARYLAND.

Personal.—Dr. Christian R. Scheller, Hagerstown, has been reappointed health officer of Washington County.

Hospital Still Needs Funds.—Ten thousand dollars are still needed for the Cambridge United Charities Hospital, the cornerstone of which was laid May 26. Mr. John E. Hurst of Baltimore has been its principal benefactor, giving $15,000.

Baltimore.

Bonds All Sold.—All the new $75,000 5 per cent. bonds issued by the University of Maryland have been sold. A new pathologic building will be erected this summer.

The Week's Mortality.—The death-rate last week was only at the rate of 12.34 per 1,000 for whites, and 14.44 for both colors. Pneumonia deaths fell to 16, those from consumption to 25. One case of smallpox was reported.

Bahama Expedition Under Way.—The expedition for scientific survey of the Bahama Islands, under the auspices of the Geographical Society of Baltimore sailed June 1. Dr. Clement A. Penrose is vice-director and surgeon and chief of the medical staff, with J. A. E. Eyster, H. P. Cole, E. B. Beasley, and T. H. Coffin of Johns Hopkins Medical School as assistants.

Bequests.—The will of Miss Louisa Catherine Belt leaves $1,000 to Dr. William Travis Howard, "in grateful appreciation of his friendship," and $5,000 in reversionary bequest to the Hospital for the Relief of Crippled and Deformed Children to endow a bed in memory of her brother. The chief portion of the estate goes to her nephew, Dr. Henry Belt, New York.

Hospital Wins Suit.—The suit against the University Hospital for $30,000 damages for alleged breach of contract for treatment of a patient was decided in favor of the hospital authorities. The patient was scalded by a hot-water bag. Testimony showed that the regents of the university, against whom the suit had been brought, had nothing to do with the hospital, it being the property of the medical faculty.

Women Graduate.—The Woman's Medical College held its twenty-first annual commencement, May 30. Of the three candidates two received degrees. Dr. Eugene F. Cordell of the board of trustees conferred the degrees. The following were elected officers of the Alumni Association: President, Dr. Hattie Frist-Emmart; vice-president, Dr. Mary A. Waters; secretary Dr. Mary N. Browne, and treasurer, Dr. Jennie N. Browne.

Resignations Recalled.—At a meeting of the Medical and Chirurgical Faculty of Maryland, May 22, the resignations from the State Medical Examining Board of the four members, Drs. J. McPherson Scott, W. W. Wiley, Franklin B. Smith, and E. McE. VanNess, were withdrawn. This was done in response to a resolution of the faculty expressing confidence in the board and asking the withdrawal of the resignations. Thus was tided over what seemed to be a crisis in the affairs of the board, and the Maryland profession is to be congratulated on retaining the services of these gentlemen.

Personal.—Dr. William Osler sailed for England, May 29, with his family. He will be gone until October 1.——Drs. James Bordley, Jr., Harry E. Peterman and C. E. Holly sailed for Europe May 30.——Dr. James Bordley, Jr., has resigned the chair of ophthalmology and otology in the Woman's Medical College.——Dr. Charles E. Simon has gone to Nova Scotia for the summer.——Dr. Alexander H. Saxton has been appointed medical examiner for the state of the Royal Arcanum, to succeed the late Dr. M. B. Billingslea.

Johns Hopkins Commencement.—The Johns Hopkins Medical School graduated 49 students, 6 of whom are women. Of these 19 are from the west, 14 from the north and east, 7 from the south, 8 from Baltimore, and 1 from Canada. Selden Irwin Rainforth of Cincinnati takes first honors. The 13 hospital positions, awarded to the students standing highest, will be held by the following: Selden Irwin Rainforth, Frank Hosford Watson, Robert Talbott Miller, Jr., Charles Whittier Young, Clinton Ethelbert Brush, Jr., Victor Hugo Bassett, Arthur Douglass Hirschfelder, John Timothy Geraghty, Alexander Raymond Stevens, Lewis Clyde Bixler, Willis Bean Moulton, Catherine Hutchinson Travis, Henry D. Long.

MASSACHUSETTS.

Munificent Gift to Stillman Infirmary.—In addition to his original gift of $150,000 James Stillman of New York has given $50,000 to be used in the erection of a ward for the treatment of Harvard students, ill with contagious diseases, entirely apart from the main infirmary building.

Vital Statistics.—Boston's death rate for the week ended May 30 again showed a decrease, reaching 16.28 per 1,000 per annum. Pneumonia as a cause of death dropped to 20. Twenty-six children under 1 year died and 42 under 5 years. As this was the seventh week of continuous drought it indicates the comparative healthfulness of such periods in a modern, clean city. Of infectious diseases there were reported: diphtheria, 40 cases, with 6 deaths; scarlet fever, 40 cases, with 1 death; typhoid fever, 26 cases, with 5 deaths; measles, 37 cases, with 2 deaths, and tuberculosis, 21 cases, with 29 deaths.

The Shattuck Lecture.—The Shattuck lecture before the Massachusetts Medical Society this year will be given by Dr. Theobald Smith on "Malaria," on June 9. Besides the usual list of excellent papers to be presented before the sessions of the society on June 9 and 10, there will be, by vote of the councilors, a discussion of the subject of "Privileged Communications," by Dr. David W. Cheever and by Walter Soren, Esq., and F. J. Stimson, Esq. It is hoped by many that this may be the beginning of a change in the laws of Massachusetts. The annual discourse this year is by Dr. Herbert L. Burrell, Boston.

MICHIGAN.

New Battle Creek Sanitarium Dedicated.—On May 31, in the presence of an audience of 20,000, the new sanitarium at Battle Creek was formally dedicated.

Diplomas Awarded.—At the seventh annual commencement exercises of the Saginaw Valley Medical College, Saginaw, May 14, a class of 34 was graduated.

The Most Dangerous Communicable Diseases.—Meningitis was reported present in Michigan during April, at 8 places; whooping cough at 54 places; diphtheria at 56 places; typhoid fever at 78 places; scarlet fever at 138 places; measles at 148 places; smallpox at 152 places, and consumption at 187 places. Meningitis was reported present at 1 place more; whooping cough at 3 places more; diphtheria at 6 places less; typhoid fever at 16 places more; scarlet fever at 9 places less; measles at 28 places more; smallpox at 17 places less, and consumption at 2 places less in April than in the preceding month.

Comparative Morbidity.—For the month of April, compared with the average for April in the 10 years, 1893-1902, smallpox, whooping cough, typhoid fever and diphtheria were more than usually prevalent; and consumption, intermittent fever, erysipelas, remittent fever and meningitis were less than usually prevalent. The diseases which usually cause the most sickness in Michigan at this time of the year were slightly less prevalent than usual in the April just passed. Possibly this lessened prevalence was due to the higher than average temperature, and the less than average amount of ozone present during the preceding month.

April Mortality of Michigan.—The total number of deaths was 2,745, or a decrease of 289 from the preceding month. The death rate was lower than for the preceding month, being 13.5 per 1,000 population. The mortality was also less than for April, 1902. Important causes of death were as follows: tuberculosis, 227; typhoid fever, 37; diphtheria and croup, 41; scarlet fever, 16; measles, 22; whooping cough, 39; pneumonia, 309; diarrheal diseases, under 2 years, 36; influenza, 91; cancer, 123; accidents and violence, 136, and smallpox, 3. Comparing April with the preceding month there was a decrease in mortality from other forms of tuberculosis, typhoid fever, scarlet fever and measles, and a very marked decrease from pneumonia and influenza.

NEW YORK.

Personal.—Dr. Harvey R. Gaylord of the state cancer laboratory is convalescing from typhoid fever.——Dr. Earl P. Lothrop has returned from the south.

State Hospital Report.—The thirty-second annual report of the Buffalo State Hospital for the year ended Sept. 30, 1902, shows that the population of the hospital is: men, 1,059; women, 1,237. Of those discharged 87 were recovered, 70 improved, 148 unimproved, 150 died, and 19 inebriates. The percentage of recoveries to number of new admissions, 23.45; the percentage to average population, 4.79, and the percentage to number discharged, 18.35.

Fighting Mosquitoes on Long Island.—A new motive for the extermination of mosquitoes has come to light. The manager of William C. Whitney's racing stable is undertaking a crusade against mosquitoes in that vicinity, because he declares "a thoroughbred horse is all nerves and a few mosquitoes can put it out of racing condition." He is endeavoring to secure the cooperation of state, city and borough authorities, pointing out that millions of people seek rest and recreation on Coney Island beach, while just back of this spot are extensive mosquito breeding marshes. It was insisted that mosquitoes did not breed on ground that was wholly covered once or twice a day, with sea water, but in brackish water and stagnant pools of so-called fresh water.

New York City.

Uniforms for Hospital Employes.—Superintendent Mabon has ordered that all employes in Bellevue and the other city hospitals shall wear distinctive uniforms.

Explosion of a Physician's Automobile.—Dr. Silas C. Blaisdell, Brooklyn, had a narrow escape from injury. He had just alighted from his automobile at his door when the automobile exploded.

Ambulance Surgeon Hurt.—Dr. E. P. Warren, an ambulance surgeon of Bellevue Hospital, was severely, though probably not dangerously, hurt, by an electric car colliding with the ambulance, and pinning the vehicle against a pillar of the elevated railroad. The ambulance driver was less severely injured, but the horse was killed and the ambulance completely demolished.

Health Department Campaigns.—The health department has received an extra appropriation of $10,000. Part is to be used in the campaign against mosquitoes and malaria; part is to assist "the typhoid section" in inspecting the water reservoirs, testing clams and oysters, and inspecting milk supplies for possible typhoid infection, and part is to be used in securing the compilation of birth certificates in order to facilitate the work of looking after the milk supplied to young infants.

PENNSYLVANIA.

Philadelphia.

Additional Milk Inspectors Needed.—By request of Dr. Martin, director of the department of health, the mayor will ask councils to provide four additional milk inspectors; this will double the present force.

Bequests.—By the will of the late Dr. Spencer Morris, Morgantown, W. Va., a prize of $1,000 is provided annually for the student in the University of Pennsylvania who passes the best examination for the degree of M.D. A bequest of $12,500 is also given to the Medico-Chirurgical College.

In Memory of Dr. Morton.—Resolutions adopted by the board of managers of the Pennsylvania Hospital in memory of Dr. Thomas G. Morton, recite that his connection with the hospital began as resident physician in 1857, and that he served as attending surgeon from 1864 until his death—thirty-nine years.

Typhoid and Smallpox.—Typhoid fever has not abated, there being, for the week ended May 30, 264 new cases and 27 deaths, as compared with 262 new cases and 31 deaths the previous week. Smallpox seems on the increase, there being for the same period 41 new cases and 7 deaths, as compared with 18 new cases and 4 deaths the previous week.

Jewish Hospital Association.—The thirty-eighth annual meeting of the Jewish Hospital Association on May 31 marked the twenty-fifth anniversary of the presidency of William B. Hackenburg. The growth of the institution has been notable; buildings recently added are a home for incurables, one for private patients, one for nurses and an operating building.

College of Physicians to Move.—The College of Physicians will move to a lot purchased for $80,000 at Chestnut and

Twenty-second streets. It is the purpose to push the construction of a handsome building on this new site. According to a census of the physicians of the city this site is geographically very near the medical center, and is sufficiently large (130x180 feet) for a modern building adapted to the needs of this time-honored and great institution.

Jefferson Commencement.—At the seventy-eighth annual commencement of the Jefferson Medical College, held May 28, 166 received degrees. Prof. J. von Mikulicz-Radecki of Breslau was present, and had conferred on him the degree of doctor of laws, Dr. William W. Keen acting for the faculty and Hon. William Potter for the board of trustees, in bestowing the degree. Hampton L. Carson, attorney-general of Pennsylvania, delivered the annual address to the graduates.

GENERAL.

Studies Leper Immorality Problem.—The Hawaiian Board of Health asked its superintendent of the leper settlement to investigate the conditions of immorality condemned by the U. S. commissioners on their visit last fall. He recommends that divorces be secured for those in the settlement who have wives or husbands outside and that they be allowed to marry persons within the leper colony. A number would marry who are now prevented by marriage ties with those outside.

Home for Incurables Report.—In the four months ended Dec. 31, 1902, the Honolulu Home for Incurables at Kaimuki received 34 patients. These comprised Hawaiians, Europeans, Japanese, Chinese, South Sea Islanders, Porto Ricans and negroes, and the cost of their keep per day per patient was about $1.45. In the same period there were 6 deaths in the hospital, and the average number of patients for that time was 18. The home has an endowment fund of $65,000, and the running expenses for the time covered in the report amounted to $2,803.45.

CANADA.

Union at Trinity.—Convocation for the conferring of degrees in medicine was held at Trinity University, Toronto, May 28. Provost Macklem, vice-chancellor, who presided, stated that the union of Trinity Medical College and Trinity University was now complete.

Personal.—Dr. Mikulicz, the eminent German surgeon, was the guest, last week, of Dr. Francis J. Shepherd, Montreal, and during his stay in that city performed an operation for umbilical hernia at the General Hospital before a large number of Montreal physicians and the graduating class in medicine of McGill University.——Dr. Edmund G. Weir, late house surgeon of the Toronto General Hospital, has just been successful in passing the double qualification in London, England, of M.R.C.S. and L.R.C.P.——Dr. George A. Hetherington, superintendent of the New Brunswick Asylum for the Insane, has gone to Boston on two months' leave of absence suffering from nephritis. In his absence Dr. A. Emery will discharge the duties of superintendent, and in the event of Dr. Hetherington being incapacitated from resuming his duties, will likely be appointed his successor.

Ontario Board of Health Meets.—At the regular quarterly meeting in Toronto last week, the annual report of Dr. Bryce, the medical health officer, stated that the outbreak of smallpox in Galt, which originated in a case coming from Cleveland, had totaled 142 cases, with 11 deaths. For 21 years isolation and vaccination had been the chief weapons used in combating smallpox; and in view of the fact that there is now a bill before the Ontario legislature seeking to do away with compulsory vaccination in Ontario, Dr. Bryce considered that the statistics of those years should receive wide circulation. From 1882 to 1900 there were 135 outbreaks, 1,085 cases and 170 deaths. In 1901 there were 199 outbreaks, 2,500 cases and 12 deaths. In 1902 there were 1,800 cases. No case had yet been heard of which was officially recognized as having been taken from Ontario into a neighboring state, all going to show the efficacy of vaccination. At a later session the board took up the subject of vaccination and the bill before the legislature seeking to abolish compulsory vaccination in the province. One member expressed his belief that not more than three members of the legislature would be found to support this bill. Dr. Bryce stated that during the four months of 1903 there had been 350 deaths from scarlet fever.

FOREIGN.

Plague in Chili is reported to have come in a cargo of rice from India; 8 cases and 5 deaths have occurred at Iquique.

The Mazatlan Plague.—One new case of plague appeared recently at Mazatlan, Mexico, which was brought from Siqueiros. Quarantine was established and the great alarm caused has been allayed by the vigorous measures adopted to prevent spread.

Amputation Without Consent.—A man sued the city of Dresden for damages because his leg had been amputated without his consent in the public hospital. He claimed $6000 or a yearly pension of $300; "pain money" $50, and "mutilation money" $1,200. The court awarded him $175 and no appeal was taken by either party.

The Miners' Disease.—The epidemic among the miners of Westphalia is so serious that some mines have had to be closed and the special commission appointed by the German government to investigate recommends severe measures to stamp the disease out. They think some years will be required. The identity of the disease is not decided; it is caused by a parasite.

Railroad Hygiene.—The administration of the railroads in Prussia has created the office of confidential physician to the service, with headquarters in Berlin. He will superintend the details of the application of the principles of hygiene to the cars, stations, homes of employes, etc., preparations for aid in case of accident, etc., and will make arrangements with sanatoria for reception of employes. His duties will also include the keeping of statistics in regard to diseases, accidents and deaths in the service.

Love Potions in the Twentieth Century.—A woman at Spandau, near Berlin, was sentenced to three months' imprisonment for selling a love potion to women anxious to retain the affections of their husbands. It was found to be a mixture of linseed oil, menthol and extract of cantharides. The accused appealed the case and summoned as witnesses the women who had been her customers. The latter unanimously testified that there had been no fraud, as the potion had accomplished its purpose. The accused was acquitted.

One Victory for the Physicians in the Contract Practice Troubles.—Our German exchanges announce that, thanks to the united stand of the profession and the aid afforded by the Leipsic Verband, the sick benefit society at Mühlhausen has been obliged to conform to the wishes of its medical officers and grant their demands for more suitable remuneration. After the resignation of the medical officers and the inability of the society to secure any new physicians to take their places, the complaints of the members were so urgent that the authorities were appealed to. The latter gave the society to a certain date to provide at least six medical attendants, and when this date had passed, proceeded to reappoint the physicians who had previously resigned, acceding to their demands.

Collective Blunder Inquiry.—The *Munich Med. Wochft.* states that the official organ of the German charlatans has organized a collective inquiry to collect information in regard to blunders and barbarity on the part of qualified physicians. It appeals to have all instances of the kind known to have occurred within the last two or three years communicated to it, the editor assuming all responsibility and guaranteeing the writers against all unpleasantness. The appeal announces that "not a small proportion but the majority of physicians commit blunders." The charlatans have also banded together and proclaim a "boycott" against five of the Berlin dailies which have not upheld them, the "boycott" to go into effect next October unless the papers change their tone in the meanwhile in this respect.

LONDON LETTER.

Mr. Hutchinson's Leprosy Investigation.

Before a crowded audience at the Polyclinic Mr. Jonathan Hutchinson reported the results of his recent tour in India. Lord George Hamilton, the Secretary of State for India, presided and stated that the Indian government took a very close and personal interest in the subject. He was very glad that leprosy had diminished in India. Twelve years ago a special commission was appointed to examine the questions of the causation and prevention of leprosy, but their report was not accepted as conclusive. Mr. Hutchinson said that he went to India with a perfectly open mind, but with a strong conviction that the fish theory was the only one to explain the prevalence and disappearance of leprosy. The special commission were on the whole unfavorable to that theory because there were a certain number of lepers in asylums who denied that they had ever eaten fish. During the last ten years there had been a decided advance in general opinion as to the causation of the

disease. On all sides it was stated that leprosy disappeared before advancing civilization and improved hygiene, but it was hardly worthy of the science of the twentieth century to conceal its ignorance under such generalities. Leprosy had receded under many conditions of advancing civilization, but this was not invariably true, as, for instance in the West Indian Islands, Spain, Portugal and Cape Colony. That the disease had nothing to do with personal cleanliness, house accommodation, or an abundant supply of food was made clear by a thousand facts. The one factor was the use of badly-preserved fish, of which he exhibited dried specimens. Leprosy was scattered all over India, and there was no place to which the fish hypothesis could not be applied. Mr. Hutchinson repeated the arguments which have recently been given in THE JOURNAL. He advocated the abolition of the salt tax as an immense boon to the community and a means of prevention of leprosy by facilitating the proper curing of fish.

Insurance Against Appendicitis.

The popular dread of appendicitis, which has now become the best-known surgical disease to the public, has resulted in a novel form of insurance. An insurance company offers to issue policies at the rate of $1.25 per annum for every $500 and to issue policies up to $2,500. By the policy the owner is guaranteed all the medical, surgical and nursing expenses up to the amount insured by an attack of appendicitis. The company points out that this premium may be largely increased in the near future as the risk of such a policy can be only indefinitely estimated.

The "Hendon Disease."

In the town of Lincoln an outbreak has for a second time occurred, apparently similar to the scarlet fever outbreak which took place in Marylebone (a London borough) and is known as the "Hendon disease." That outbreak occurred in 1885 and was investigated by Mr. Power and Prof. Klein, who concluded that several cows at a dairy at Hendon suffering from a peculiar vesicular eruption on the teats and on the body, but not noticeably ill, were the source of infection. Since then several similar outbreaks have been reported and traced to the same cause. In the recent Lincoln outbreak the medical officer of health has traced all the cases to one dairy in the town. All the affected persons had partaken of milk from it and the cows were suffering from a vesicular eruption on the teats and other parts. The symptoms in man are as follows: On the first day sore throat, vomiting and sometimes diarrhea, followed in many cases by a scarlatiniform rash two days later, with desquamation about a week later. Most of the patients fell ill on the same day, but none of the cases were serious and no deaths have been reported. Of 40 cases notified 14 occurred in one household. In the corresponding outbreak a year ago over 100 persons were affected. That appears to have been a more severe one, for there were 4 deaths. All the patients drank milk from one dairy. In the Marylebone outbreak a streptococcus was obtained from the vesicles on the cows. It was cultivated, and in calves produced a disease in many ways analogous to scarlet fever in man, especially in renal affection.

Vital Statistics of London.

For the week ending May 16 there were 2,615 births and 1,278 deaths. The annual death rate per 1,000, which had been 16.8, 17.3 and 15.7 in the preceding three weeks, further fell last week to 14.4. There were as many as 59 deaths from violence, of which 12 were cases of suicide, and the remaining 47 were attributed to accident or negligence. Seven of these were due to vehicles in the street, 9 to drowning, one to an anesthetic and 7 (of infants) to suffocation in bed.

Correspondence.

The Christian Hospital Swindle.

CHICAGO, June 3, 1903.

To the Editor:—The Medicolegal Committee of the Chicago Medical Society wish to make the following statement to the profession of the United States:

On Sunday, May 17, Dr. J. B. Murphy brought the Christian Hospital of Chicago to our attention. Dr. Murphy had returned from Washington that morning. In his mail he had found a letter dated May 12, offering him the presidency of the Christian Hospital. This letter was written on a letter head bearing his name as president. In the same mail were a large number of letters from physicians of the far west and southwest, some of which were dated as early as the 12th, calling his attention to the hospital and enclosing various advertising items bearing his name as president. In the main the accompanying letters are very considerate in tone, occasionally one was abusive.

On Monday the committee consulted their attorney, Mr. A. E. Dacy, of Pam, Calhoun & Glennon. They then saw Mr. Deneen, States Attorney for Cook County, and Inspector Stuart of the postoffice department. Dr. Murphy was very anxious to ask for an injunction restraining the Christian Hospital from using his name. The authorities insisted that such a course would make it impossible for them to get information. Dr. Murphy consented to wait until our committee was ready. On yesterday, June 2, Inspector Ketcham had Drs. A. C. Probert and N. E. Wood, styling himself N. News Wood, arrested for improper use of the mail. To-day, June 3, Dr. Murphy has secured an injunction in the Superior Court of Cook County, prohibiting the use of his name by the Christian Hospital or by the officers thereof.

The history of St. Luke's Hospital, of Niles, Mich., is known to most readers of THE JOURNAL. That corporation was owned by Drs. Granville and Probert. The committee has in its possession proof that Probert has served a term in the Wisconsin penitentiary. Granville has indulged in various whimsicalities. The Chicago *Record Herald* for 1899 contains a telegram from New Carlisle, Ind., announcing his arrest for bigamy, specifying five wives. It will be remembered that they made unwarranted use of the name of Dr. N. Senn of this city. In their dental department they used the name of Dr. E. C. Kinsman of Cambridge, Mass. That this was without authority is shown by affidavits, copies of which are in our possession. In 1901 Michigan became uncomfortable for this institution, and this brings us to our present story. In 1893 the Secretary of State incorporated the "Chicago Store" for general merchandise purposes. In 1901 this charter was purchased by Drs. Wood and others and the name and purpose changed so as to allow of a hospital and dispensary. In 1903 the name was changed to "The Christian Hospital." It will be noticed that when St. Lukes faded in Michigan in 1901 this one appeared here.

The reading matter and the general business policy of the institutions are identical. Nearly every name found on the Christian Hospital staff was a member of the St. Luke's staff or has appeared in some connection with St. Lukes in the past. In this connection read articles in THE JOURNAL[1] and in the *Dental Digest* exposing St. Lukes. Even the most obtuse can see that the guiding spirit of the two institutions is the same.

The postal authorities have letters from at least six physicians stating that they purchased certificates by reason of Dr. Murphy's name. We ask every man who has purchased a certificate with this understanding to do his duty as a physician and as a citizen by writing Inspector Ketcham. We have not gotten hold of any certificate as yet. Will not those physicians who have certificates send them to the Medicolegal Committee of the Chicago Medical Society?

We wish to thank Dr. Murphy for his patience in spite of a good deal of misunderstanding and some abuse; to thank Mr. Deneen and Mr. Blair, of the State Attorney's office, and Inspector Ketcham as representing the postoffice authorities.

We will keep the profession posted as to later developments. In the meanwhile we must have their co-operation.

W. A. EVANS.
HAROLD N. MOYER.
C. S. BACON.

Priority in Enterorrhaphy Methods.

ST. LOUIS, June 1, 1903.

To the Editor:—In the May 30 issue of THE JOURNAL appears a most excellent article by Dr. O. Beverly Campbell, under the title "The Single Cuff Method of Circular Enterorraphy. A New Method." My object in writing is to call attention to the fact that the method is not new, al-

1. THE JOURNAL A. M. A., Sept. 7, 1901, p. 648, and Nov. 16, 1901, p. 1329.

though I consider just as much credit due Dr. Campbell for his extensive experiments and for his logical conclusions as though he had been the first to publish the method.

Die Beitrage zur klinischen Chirurgie, Bd. XIV (1895), 1-136, contains an article by R. von Frey, entitled "Ueber Technik der Darmnaht," in which he advances as original the operative procedure which Dr. Campbell has made the basis of such good work. Von Frey operated on ten dogs, of which number nine survived; while his microscopic specimens show the condition of the line of union at different periods up to two and one-half months. In a hasty survey of the literature on intestinal surgery I note that two textbook authors at least give von Frey credit for the method (both Frenchmen and very recent writers), though it would seem that his work has not become very generally known, so it is easy to see how Dr. Campbell could have overlooked it. The works to which I just referred are "La Suture Intestinale," par Terrier et Boudouin, and "Chirurgie de l' Intestin," par Jænnal, 2me edition.

As far as Dr. Campbell is concerned the method is original with him in a sense, since he evidently worked independently of any knowledge of von Frey's earlier experiments. Further, when Campbell's article reaches those who are familiar with von Frey's writings, they will be forced at least to admit that the American has done more than the German toward proving the truth of this surgical principle (as far as practice is concerned at least), since the latter worked on ten dogs alone, while the former performed 75 such experiments, to say nothing of two tests on the human subject. WILLARD BARTLETT.

Marriages.

A. B. HOWATT, M.D., to Miss Mabel Lewis, both of Chicago, May 21.

ANDERSON MANSFIELD HOLMES, M.D., to Miss Azile Swann, both of Denver, April 25.

ALLEN MASON THOMAS, M.D., to Mrs. Anna O'Neil Miner, both of New York City, June 2.

THOMAS F. SPINK, M.D., Washington, Ind., to Mrs. Juliet B. Brown, at Louisville, Ky., April 30.

MORTON RAYMOND GIBBONS, M.D., San Francisco, to Miss Mary Spayd Stubbs of Chicago, May 12.

CHARLES S. VALCOUR, M.D., Nashua, N. H., to Miss Florence G. Doherty of Manchester, N. H., May 23.

WILLIAM KING CAMPBELL, M.D., Long Branch City, N. J., to Miss Lutie Hathaway of Long Branch, N. J., May 12.

Deaths.

Florence W. Hunt, M.D. Woman's Medical College, Chicago, 1884, whose death was noted in last week's issue, died May 27, after an abdominal section made at St. Mary's Hospital, Milwaukee. She was 45 years of age, was prominent in medical affairs for many years; was resident physician at the Cook County Insane Hospital during its stormiest days; was a member of the State Board of Health, and a member of the attending staff of St. Joseph's, and Cook County hospitals. Her illness was supposed to be appendicitis, but at the time of operation a more serious condition was disclosed. She was one of the founders and most active members of the Chicago Medical Women's Club.

George P. Cassidy, M.D. Miami Medical College, Cincinnati, 1885, died at his home in Shawneetown, Ill., May 15, from pneumonia, aged 43. He was one of the leading physicians of Shawneetown and Gallatin County. He founded the Gallatin County Medical Society, and also was a member of the Illinois State Medical Society and American Medical Association. He was a delegate to the state Medical Society, and had just returned from Chicago, where he had a chill and developed pneumonia, from which he died nine days later.

William C. Eichelberger, M.D. Rush Medical College, Chicago, 1870, a specialist on the eye and ear; a member of the American Medical Association, Vigo County (Ind.) Medical Society, of which he was once president, and the Wabash Æsculapian Society; who practiced for many years in Terre Haute, Ind., died at a sanitarium in Jackson, Tenn., after a long illness, May 18, aged 62. At a meeting of the Vigo County Medical Society, May 23, resolutions in honor of Dr. Eichelberger were adopted.

Thomas McCann, M.D. Bellevue Hospital Medical College, New York, 1886, surgeon of the Pennsylvania and Allegheny Valley railroads; surgeon to the West Pennsylvania Hospital, Pittsburg; consulting surgeon to St. Johns Hospital, Allegheny; professor of practical surgery, Western Pennsylvania Medical College; one of the most skilled surgeons of Western Pennsylvania, died at his home in East End, Pittsburg, May 9, from kidney disease, after an illness of two year's duration, aged 40.

Evan Hadley, M.D. Medical College of Indiana, Indianapolis, 1870, a member of the American Medical Association; for many years a member, and in 1888 president, of the Marion County Medical Society; for 30 years a physician of Indianapolis, died at his home in Mooresville, Ind., May 13, from organic heart disease, after a prolonged illness, aged 58. The Indianapolis Medical Society and the faculty of Dr. Hadley's alma mater adopted resolutions setting forth his excellences and deploring his loss.

Alice M. Potter, M.D. University of Buffalo, 1897, of Ithaca, N. Y., after heroic work and self-sacrifice in the recent typhoid fever epidemic, was attacked by the disease, with complications of appendicitis, endocarditis and pericarditis. Despite operation for appendicitis, she died at her home in Ithaca, May 2, aged 33. The physicians of the city, at a special meeting held May 2, adopted resolutions setting forth their appreciation of Dr. Potter's services and their loss by her death.

Edward Charles Wendt, M.D. University of Strassbourg, 1877; College of Physicians and Surgeons, New York, 1880; a member of the editorial staff of the *Medical Record* for several years, and an authority on sanitation and public health, committed suicide while temporarily insane from illness, by shooting himself, May 25, aged 45. He was residing in Paris at the time, and had been making exhaustive studies of the methods of sanitation in Europe.

George Pierce Andrews, M.D. College of Physicians and Surgeons, New York, 1862, one of the founders of Detroit Medical College, the Detroit Academy of Medicine and the Michigan State Medical Society, and until 1881 professor of theory and practice of medicine in the Detroit Medical College, died May 9 at his home in Honolulu, H. I., where he had lived for 13 years, after an illness of four days, aged 65.

Octavius A. White, M.D. Medical College of the State of South Carolina, Charleston, 1848, famous during the Civil War as a yellow fever expert, for many years a resident of New York City; a member of the New York Academy of Medicine, died at his home in New York from Bright's disease, May 25, after an illness of several weeks, aged 77.

James Clark Channell, M.D. University of Pennsylvania, Philadelphia, 1871, a member of the American Medical Association; a veteran of the Civil War; a member of the York County (Pa.) Medical Society, died at his home in Wrightsville, May 19, from pneumonia, after an illness of one week, aged 59.

John Perrier, M.D. McGill University, Montreal, 1868, professor of theory and practice of medicine, Cleveland College of Physicians and Surgeons, died from typhoid fever May 10, at his home in Cleveland, after an illness of four months, aged 60. He was a member of the American Medical Association.

Rufus Osgood Mason, M.D. College of Physicians and Surgeons, New York City, 1859, acting assistant surgeon in the Navy throughout the Civil War; a member of the New York Academy of Medicine and the Society for Psychological Research, died at his home in New York City, May 11, aged 72.

Dallas Bernhardt, M.D. College of Physicians and Surgeons, Baltimore, 1885, a member of the Huntingdon County (Pa.) Medical Society, died at his home in Three Springs, March 30, aged 46. The society, at its meeting May 14, adopted memorial resolutions regarding Dr. Bernhardt's death.

Wilson Cornelius Marden, M.D. Medical School of Maine, Bowdoin College, Brunswick, 1896, of Pittsfield, Me., died at Mercy Hospital, Prescott, Ariz., from pulmonary tuberculosis, May 1, after an illness of four months, aged 36. He was a member of the American Medical Association.

Clinton Henry Lubbock, M.D. University of the State of Missouri, Columbia, 1880, died at his home in Alameda, Cal., from paresis, after an illness of several months, May 20, aged 42.

He served four years as member and one term as president of the local board of health.

Charles William Doyle, M.D. University of Aberdeen, Scotland, 1875, prominent alike as a citizen, physician and writer, author of "The Taming of the Jungle," died suddenly from apoplexy, at his home in Santa Cruz, Cal., May 1, aged 53.

James Melvin Sims, M.D. Marion-Sims Medical College, St. Louis, 1899, formerly of Galena, Mo., a member of the American Medical Association, died at his home in Marion, Ill., May 16, from tuberculosis, after a long illness, aged 33.

Samuel G. Dearborn, M.D. Dartmouth Medical College, Hanover, N. H., 1850, a surgeon in the Civil War, and some-time member of the New Hampshire legislature, died suddenly at his home in Nashua, May 8, aged 76.

Frank Daniel, M.D. Atlanta (Ga.) College of Physicians and Surgeons, 1902, died at his home in Moultrie, Ga., May 6, from injuries received in a collision between a motor car and a logging train, a few hours before.

Stuart Bates, M.D. Toronto (Ont.) University Medical Faculty, 1888, a member of the American Medical Association, died at his home in Virginia, Minn., May 6, from accidental poisoning by laudanum, aged 38.

Thomas Carroll Rich., M.D. Maryland University School of Medicine, Baltimore, 1869, died at Williamsport, Pa., aged 59. He was a member of the state medical society and of the American Medical Association.

Alfred Hasbrouck, M.D. College of Physicians and Surgeons, New York, 1848, for more than half a century a practitioner of Poughkeepsie, N. Y., died at his home in that city, May 9, after a short illness, aged 82.

Louis Knorr, M.D. Oglethorpe Medical College, Savannah, Ga., 1860, formerly professor of chemistry in Savannah Medical College, died suddenly, May 12, at his home in Savannah, from apoplexy, aged 78.

John W. Kirkpatrick, M.D. Rush Medical College, Chicago, 1888, president of the Eastern Iowa Medical Society, died suddenly in his office at Wyoming, Iowa, May 13, from heart disease, aged 40.

Harris Lee Paige, M.D. Jefferson Medical College, Philadelphia, 1896, formerly of New Britain, Conn., was found dead in his office in Dover, Del., April 30. His death was due to apoplexy.

Andrew Jay, M.D. Medical College of Alabama, Mobile, 1872, member of the legislature from Conecuh County, Ala., died suddenly from heart disease at his home in Evergreen, May 8, aged 52.

Hans J. Englund, M.D. Bennett Medical College, Chicago, 1888; Rush Medical College, 1895, died May 5, from pneumonia, after an illness of eight days, at his home in Cambridge, Minn., aged 46.

Joshua Chitwood, M.D. Miami Medical College, Cincinnati, 1858, a surgeon during the Civil War, died May 13, at his home in Connersville, Ind., from Bright's disease, after a long illness, aged 65.

Samuel Bridgland, M.D. Queen's University, Kingston, Ont., 1870, of Bracebridge, Ont., a member of the Ontario legislature, died, May 6, from Bright's disease, after a long illness, aged 56.

Warner F. H. O'Keefe, M.D. New York Homeopathic Medical College and Hospital, 1875, died, May 20, from Bright's disease, after an illness of two years, at his home in Pittsburg, Pa.

Howard Vance, M.D. Kentucky School of Medicine, Louisville, 1884, formerly of Ava and Le Roy, N. Y., died in Yonkers, N. Y., April 30, after an illness of four months, aged 40.

Stephen E. Rice, M.D. University of Pennsylvania, Philadelphia, 1893, died at his home in Memphis, May 6, from the effects of a self-inflicted gunshot wound of the head.

Ephraim L. Acker, M.D. University of Pennsylvania, Philadelphia, 1852, member of congress in 1870, died at his home in Allentown, Pa., May 12, after a long illness, aged 76.

Charles C. Sparklin, M.D. Rush Medical College, Chicago, 1861, died suddenly from heart disease at Goshen, Ind., where he had practiced for more than 40 years, May 5, aged 62.

Hiram J. Hartley, M.D., one of the oldest practitioners of Vigo County, Ind., died at his home near Spring Hill, May 1, from cancer, after a protracted illness, aged 79.

John Reid, M.D., 1877, health officer of Chicago after the great fire of 1871, died in London, England, May 14, from acute bronchitis, after a short illness, aged 80.

Walter Byron Sherman, M.D. Cleveland Medical College, 1870, died at his home in Eagle Cliff, Cuyahoga County, Ohio, May 19, aged 72.

Abram M. McAlpine, M.D. Columbus Medical College, 1877, of Peoria, was found dead from chronic alcoholism, April 27, aged 45.

John H. Shelton, M.D. College of Physicians and Surgeons, Keokuk, Iowa, 1882, died at his home in Tower Hill, May 13, aged 68.

George C. Synon, M.D. Rush Medical College, Chicago, 1880, died at his home in Chicago, May 21, from paralysis, aged 45.

Oliver C. Evans, M.D. Pulte Medical College, Cincinnati, 1878, died at his home in Joplin, Mo., May 5, aged 58.

Queries and Minor Notes.

ANONYMOUS COMMUNICATIONS will not be noticed. Queries for this column must be accompanied by the writer's name and address, but the request of the writer not to publish his name will be faithfully observed.

ELIGIBILTY FOR MEMBERSHIP.

WHITE CASTLE, LA., May 29, 1903.

To the Editor:—Please answer the following question through THE JOURNAL: Is a homeopathic graduate, who claims he does not practice "sectarian medicine," and who is a "legally qualified and registered physician" eligible for membership in the county society, state association and American Medical Association?

WHYTE GLENDOWER OWEN.

ANS.—Each affiliated state society regulates membership in its own territory.

Medical Organization.

Reorganization Work in Arkansas.

The Arkansas State Medical Association met at Jonesboro, April 30 and May 1 and 2. The new order of things was in evidence on every hand. The actual membership had increased during the year from 190 to 697, and the increase in enthusiasm and zeal was even greater. This spirit was especially manifest in the officers and council, made up in the main from the younger members.

The program was an excellent and extensive one, and there was ample time for a full and free discussion of every paper, as the house of delegates relieved the scientific body of the consideration of all business and ethical matters. As the house of delegates was a comparatively small body, containing only about fifty members, business affairs received prompt and satisfactory attention. It was especially pleasing to find how easy it was to arrange the work of the house of delegates so as to permit the delegates to attend and take part in most of the scientific work of the general meetings.

Added interest was given to this session by the fact that an effective medical examining law had been passed by the general assembly that had just adjourned, and it was the duty of this first house of delegates to nominate members from which the governor would select the first Arkansas State Medical Examining Board. A law was also secured during the year, abolishing the system of "drumming" for practice at Hot Springs, and imposing heavy penalties on such solicitors, and all who employ them. This practice had grown to such proportions in recent years as to be a standing reproach to the profession. To the unity growing out of new methods of organization was given the credit for the enactment of all of this legislation, and it gave members some idea of what it would be possible for the profession to accomplish, when the organization was as complete as it could be made.

The council had proven so efficient that little change was made in its personnel for the coming year. It met and organized before the final adjournment of the session, the following being a list of its officers and members: E. T. Dibrell, Little Rock, chairman; Montague Fink, Helena, secretary; G. A. Warren, Imboden; M. M. Inman, Quitman; Vernon McCammon, Arkansas City; Morgan Smith, El Dorado; J. S. Coon, Nashville; C. T. Drennen, Hot Springs; J. B. Bolton, Eureka Springs, and H. D. Woods, Fayettesville.

The officers elect of the association are: President, Leonidas Kirby, Harrison; vice-presidents, J. L. Burns, Jonesboro; J. C. Cleveland, Bald Knob; J. C. Wallis, Arkadelphia; Secretary, J. P. Runyan, Little Rock; treasurer, R. C. Thompson, Pine Bluff.

Societies.

COMING MEETINGS.

Medical Society of Delaware, Dover, June 9.
Massachusetts Medical Society, Boston, June 9-10.
Michigan State Medical Society, Detroit, June 11-12.
Minnesota State Medical Society, St. Paul, June 17.
Medical Association of Montana, Helena, June 17-18.
Medical Society of New Jersey, Asbury Park, June 23-25.

Smith County (Texas) Medical Society.—At the meeting in Tyler, May 12, the following officers were elected: Dr. William S. Lacey, Troupe, president; Dr. Charles A. Smith, Tyler, vice-president, and Dr. Albert Woldert, Tyler, secretary and treasurer (re-elected).

Arundel Medical Society.—At the annual meeting in Annapolis the following officers were elected: President, Dr. H. Baldwin Gantt, Waterbury; recording secretary; Dr. B. R. Davidson, Davidsonville; corresponding secretary, Dr. Charles B. Henkel, Annapolis, and Treasurer, Dr. Frank H. Thompson, Annapolis.

Gallia County (Ohio) Medical Society.—At the May meeting the following officers were elected: President, Dr. Theodore L. Chadbourne; vice-president, Dr. Ella G. Lupton; secretary, Dr. Harry S. Allen; treasurer, Dr. S. W. Williams, and censors, Drs. Charles G. Parker, James T. Hanson, and John B. Alcorn, all of Gallipolis.

Jefferson Medical College Alumni Association.—At the annual banquet, held May 27, Dr. Thomas D. Davis of Pittsburg, president, acted as toastmaster. Charles Emory Smith, Daniel Baugh, Dr. James C. Wilson, and Dr. S. Weir Mitchell responded to toasts. The following officers were elected for the ensuing year: President, Dr. W. Joseph Hearn, Philadelphia; a vice-president from each of the states, and one representing the Philippines; corresponding secretary, Dr. Charles S. Barnes, Philadelphia; recording secretary, Dr. Frank C. Hammond, Philadelphia; treasurer, Dr. William M. Sweet, Philadelphia, and chairman of executive committee, Dr. James T. Rugh, Philadelphia.

Chickasaw (I. T.) Medical Association.—The seventh semi-annual meeting was held in Tishomingo I. T., May 13, the president, Dr. James W. Gilbert, Roff, in the chair. The association was reorganized under the new constitution and by-laws as recommended by the American Medical Association. The following officers were elected for the ensuing year: Dr. Herbert P. Wilson, Wynnewood, president; Dr. John D. Batson, Marietta, first vice-president; Dr. F. P. Bates, Durwood, second vice-president, and Dr. J. W. Shelton, Wynnewood, secretary and treasurer. Dr. James W. Gilbert, Roff, was elected delegate to the Indian Territory Medical Association, which met at South McAlester, June 2 and 3. The eighth semi-annual meeting will be held in Ada, I. T., in November.

New York State Medical Association—First District Branch.—The nineteenth annual meeting was held, May 26, at Watertown. There were about sixty physicians present, among whom were the following: B. C. Cheeseman, Andrew J. Dick, Charles C. Kimball, J. O. Stranahan, J. N. Bassett, Edgar H. Douglas, Parker Syms, president of the Fifth District Branch of the New York State Medical Association; Dr. Frederick Holme Wiggin, president of the state association, and others. Hon. James F. Pappa, mayor of the town of Watertown, gave an address of welcome. A good program of scientific papers was carried out. Eleven new members were elected, and the following officers for the ensuing year: President, J. Orley Stranahan, Rome; vice-president, Dr. John N. Bassett, Canton, and secretary and treasurer, Dr. Edgar H. Douglas, Little Falls.

University of Maryland School of Medicine Alumni Association.—At the annual meeting and banquet, May 18, the following officers were elected: President, Dr. Henry D. Fry, Washington, D. C.; vice-presidents, Drs. George E. H. Harmon, U. S. Navy; George R. Graham and Jonah E. Gichner, Baltimore; recording secretary, Dr. Charles E. Sadtler, Baltimore; corresponding secretary, Dr. J. Fussell Martenet, Baltimore; treasurer, Dr. G. Lane Taneyhill, Baltimore, and executive committee: Drs. John I. Pennington, W. F. Skillman, J. M. Hundley, W. E. Wiegand and H. H. Biedler. The following committee to make arrangements for the centennial celebration to take place in 1907, was appointed: Drs. G. Lane Taneyhill, Eugene F. Cordell, J. Fussell Martenet, B. Merrill Hopkinson, Wilmer Brinton, John T. King, C. E. Sadtler, James H. Jarrett, John I. Pennington, Wilbur F. Skillman. The banquet hall was decorated with the university colors, and president John T. King acted as toastmaster. Toasts were responded to by Drs. George H. Hocking, John I. Pennington, J. Holmes Smith, Hon. John P. Poe, of the School of Law, C. J. Grieves, D.D.S. of the Faculty of Dentistry, and Mr. A. L. Wilkinson, president of the graduating class. There were 141 subscribers to the banquet.

AMERICAN SURGICAL ASSOCIATION.

Annual Session, held in Washington, D. C., May 12 to 14, 1903.

The President, Dr. Maurice H. Richardson, Boston, in the Chair.

President's Address.

DR. MAURICE H. RICHARDSON, Boston, in his presidential address, spoke of the great opportunities exploratory operation offered for the study of internal diseases, especially in their earliest stages, in many instances being the only method which afforded an opportunity for exact observation. He said: "The surgeon, then, in his opportunities for observation and study, has contributed vastly to our knowledge of internal disease, especially in its early stages. His explorations demonstrate truth and control opinions; they perfect observations, and, in showing the value of deductions, teach their weight; they prove the interdependence of symptoms on lesions, and of lesions on symptoms; they demonstrate the fallacy of some inferences and the truth of others. Accumulated experience will show these things so clearly that in time the diagnosis of the clinician will approach the accuracy of scientific demonstration. In therapeutics surgery has shown what surgery can do and what it can not do, as well as what medicine can and can not do. Surgery will show still more clearly its own limitations, as well as the limitations of clinical medicine. Working together it seems not impossible that in the near future there will be no borderland between them. It will then have been demonstrated that internal diseases, even some of those now regarded as hopeless, will, by surgical or by medical therapeutics, or by both, be delegated to that class of brilliant achievement to which now belong appendicitis, gallstones, and internal hemorrhage."

Papers on Toilet of the Peritoneum.

DR. GEORGE R. FOWLER, Brooklyn, read a paper entitled "The Toilet of the Peritoneum in Appendicitis," in which he laid especial stress on the importance of avoiding infecting any areas that were not infected. When drainage is instituted, it should be by glass or smooth rubber tubes.

IN STOMACH SURGERY.

DR. ALBERT VANDER VEER, Albany, read a paper entitled "Operations on the Stomach, with Special Reference to the Toilet of the Peritoneum." The author felt that much of the success in the treatment of this line of cases was due to the care exercised in the toilet of the peritoneum. The abdominal contents should be handled as little as possible; traumatism should be avoided, as should also soiling the peritoneum by secretions from the mucous surfaces, which are fertile sources of infection. The importance of drainage was emphasized especially in operation on the region of the posterior wall of the stomach.

IN TUBERCULAR PERITONITIS.

DR. A. J. OCHSNER, Chicago, read a paper entitled "Toilet of the Peritoneum in Tubercular Peritonitis," in which he gave a careful résumé of the literature on the subject and his personal experience, and recommended early operation if the case was seen while the infection was still within a confined area, but if the diagnosis had not been made until late, and the patient was very weak and the infection general, he felt it was better to wait a few days until the condition becomes a little more favorable for operation.

IN PHLEBITIS.

DR. ARPAD J. GERSTER, New York, read a paper entitled "Septic Phlebitis of the Roots of the Portal Vein and Pylephlebitis, Together with Some Remarks on the So-called Peritoneal Sepsis," in which he went fully into the literature on the subject and reported four cases, giving the important diagnostic and prognostic points, and stating that while he believed the prognosis was very bad, it was not invariably hopeless, but that early diagnosis and prompt operation are the only safeguards.

DRS. R. H. HARTE, Philadelphia, and S. H. WEEKS, Portland, Me., also read papers on the toilet of the Peritoneum.

AFTER GUNSHOT WOUNDS.

DR. GEORGE TULLY VAUGHAN, Washington, D. C., read a paper entitled "Toilet of the Peritoneum in Gunshot Wounds of the Stomach and Intestines," in which he emphasized the necessity for drainage and thorough cleansing of the abdominal contents in all cases.

IN DIFFUSE PERITONITIS.

DR. JOSEPH BLAKE, New York, read a paper entitled "The Treatment of the Peritoneum in Spreading and Diffuse Peritonitis," in which he divided the purulent forms of peritonitis into three classes: 1. Cases in which there is a localized collection of pus with limiting adhesions: 2. Cases with spreading peritonitis, in which there is no limitation of the process by adhesions or gravitation, but in which the limits are ascertainable. 3. Cases of general peritonitis, in which no parts of the peritoneum, possibly excepting the lesser sac, can be demonstrated as free from the invasion. The treatment which has given the best results in his experience is as follows: 1. Early operation. 2. Lavage of the peritoneum with large quantities of saline solution. 3. Closing of the peritoneal cavity without drainage, unless the latter is absolutely indicated by the presence of non-absorbable amounts of necrotic material. Appended to the paper was the report of a large number of cases.

DISCUSSION.

DR. JOHN C. MUNRO, Boston, discussed Dr. Gerster's paper, and said he considered the chill a very important symptom, although a very irregular one. In his opinion the sensorium is not clouded, the appetite is ravenous, although there may be tremendous emaciation, and in many cases jaundice is present. He believes that if cases could be gotten early enough they could often be satisfactorily treated. The subphrenic abscesses are more apt to be secondary, following liver abscesses, although they may come from retroperitoneal lymphangitis.

Operations for Trigeminal Neuralgia.

DR. ROBERT ABBE, New York, read a paper on a simplified and improved operation for trigeminal neuralgia, by intracranial neurectomy, with interposition of rubber tissue, and without resection of the gasserian ganglion. After having operated for many years by the usual intracranial method, with one death from shock, he had adopted a modified method in eight cases during the past seven years, which he regarded as a distinct improvement. Satisfied from study of the nerves removed extensively anterior to the base of the skull, that the disease is, in almost all cases, an inflammation of the nerves affected in the bony channels adjacent to the antrum and teeth, he regards the temporary cure by nerve resection within the skull as proving that ganglion resection is uncalled for. The recurrence being unquestionably due to reunion, he prevents that by interposing a small piece of sterile rubber tissue between the ganglion and the outlets of the second and third branches, which are all he ever resects. This method has, in eight cases, given the same excellent results as in ganglion resection.

Experiments on rubber tissue showed that it always remains sterile and is never changed in texture. Therefore it remains as a permanent barrier to reunion. The complete operation consists in: Ligation of the external carotid in the neck; a straight incision from just behind the middle of the zygomatic arch; upward and slightly forward in the temporal fossa; splitting the temporal muscle and scraping it widely from the bone; enlarging to one and a half inches a small trephine opening, and lifting the brain and dura mater from the middle fossa; exposing and resecting a half inch of the second and third branches in front of the gasserian ganglion; spreading a rubber tissue strip an inch and a half long over the openings and pressing it down on the bone till all bleeding stops; letting the ganglion settle down on the tissue and closing the wound.

DISCUSSION.

DR. GEORGE R. FOWLER, Brooklyn, commented on the uncertainty of the author's method, reporting a case in which it worked very well, and another one where it did not work at all, although he was able to explain the cause of the failure in the latter case. He did not think one could depend entirely on the ligature of the external carotid as a means of preliminary hemostasis.

DR. GEORGE E. BREWER, New York, mentioned a case in which he had employed the methods with satisfactory results. His experience in ligature of the external carotid has been that the hemorrhage is venous, and hard to control, seeming to come in most cases from a tributary of the cavernous sinus.

DR. ABBE claimed to have satisfied himself that the disease was in the nerve and not in the ganglion. He referred to the existence of spots of inflammation along the nerve sheath, which he thought were probably the original sites of the neuralgia, from which the disease worked its way back to the ganglion, if not into it.

Ulcer of the Bladder.

DR. GEORGE E. ARMSTRONG, Montreal, Canada, read a paper entitled "Single Ulcer of the Urinary Bladder, Non-tuberculous and Non-Malignant, with Report of Cases," in which he reported the case of a man 21 years of age, without venereal history and of temperate habits, in whom the attack came on suddenly without known cause, accompanied by the following symptoms: 1. Pain at the end of the penis about the corona and on the dorsum, just before micturition and generally so severe as to necessitate the administration of morphia. 2. Frequent micturition, and 3, loss of expulsive power. The patient died eight months after the onset, operation having been performed in the meantime, and the autopsy showed acute miliary tuberculosis of both lungs, the left adrenal, spleen, left ureter, kidneys and bladder. The second case occurred in a boy 12 years of age and was cured by injections of silver nitrate. He went fully into the literature on the subject and stated that he believed the three chief causes of single ulcer of the bladder to be infection, thrombosis and syphilis. The chief symptoms are pain, frequency of micturition and presence of small quantities of blood in the urine. The prognosis is good, if recognized early, and he believed operation gave as good chances of relief as for ulcer in the stomach.

DISCUSSION.

DR. WILLIAM L. ESTES, Bethlehem, Pa., added another case to those reported in the paper. The case was one of a man fifty years old, who was operated on with the idea that he had septic peritonitis, but his condition was found to be due to an ulcer of the bladder resembling very closely an ulcer of the stomach. The patient made a good recovery.

DR. H. R. WHARTON, Philadelphia, narrated a case of enchondroma of the spinal column, which developed a year after a strain while lifting. The tumor was excised and the patient recovered.

(To be continued.)

AMERICAN GYNECOLOGICAL SOCIETY.

Twenty-eighth Annual Meeting, held in Washington, D. C., May 12 to 14, 1903.

The President, Dr. Joseph E. Janvrin, in the Chair.

(Continued from page 1531.)

Repetition of Cesarean Section on the Same Patient.

DR. CHARLES M. GREEN, Boston, after a brief summary of the experience of the Boston Lying-In Hospital with repeated cesarean sections, raised the question whether it is justifiable in performing cesarean section for either an absolute or an

elective indication to remove normal organs, or to resort to other procedures with a view to preventing subsequent pregnancy and the risk of a repeated section. The writer sought to answer this question in the negative, and invited discussion of his views.

Of 9 repeated sections, all performed on a relative indication, 4 were done, one each, by four members of the staff, and 5 by the author; 2 were done after labor had been in progress for nine hours each, and 7 at an elected date before labor began. One patient had her first section without the hospital; 6 had their first and second, and 1 her first, second and third sections within the hospital. In one case there were no adhesions; in 7 cases there were more or less adhesions; the duration of operation was from 39 1/3 minutes to one hour and 24 minutes. In the case that died of shock the duration was 48 minutes. In one case the utero-abdominal adhesions were so extensive that the fetus was delivered without opening the peritoneal cavity, and the time of operation was 38 minutes. The 9 infants were discharged well; and of the 9 mothers, 1 died, a maternal mortality of 11 per cent.

These results were not reported as unique or remarkable, because repeated sections have resulted favorably in other clinics, but they are reported in the hope of influencing opinion that the time has come when the society should withhold its approval of the doctrine that women should be sterilized at their first cesarean section, in order that they may not be subjected to the risks of a repeated section.

Surgical Treatment of Early Diagnosed Cancer of the Uterus, More Especially by Hysterectomy.

The president, Dr. Joseph E. Janvrin, New York, delivered the annual address. After paying fitting tributes to Drs. John Byrne, T. Gaillard Thomas and Edward W. Jenks, he pointed out the conditions in which vaginal and abdominal hysterectomy held out good hopes for a radical cure; also the conditions in which the operation held out some prospects of a radical cure, and certainly a prolongation of life with a more comfortable existence than could possibly be hoped for if hysterectomy was not resorted to.

He took up the development of cancer in and from the cervix. His own observations as to the extension of epithelioma beginning in the cervix are as follows: (1) Up and into the cervical canal; (2) up and into the uterine body; (3) to the tissues surrounding the cervix, the parametrium especially; (4) downward on the vaginal mucosa, and after a certain time through the mucosa into the wall itself.

The author, after quoting freely the statistics of other writers, both European and American, regarding cancer of the uterus, stated that his own statistics up to Jan. 1, 1899, were as follows: Abdominal and vagino-abdominal hysterectomy: 12 cases, 2 cured, more than eight years having elapsed since operation; 6 recurrences; 4 deaths from operation, 2 from shock, 1 from septicemia and 1 from uremia. Percentage of cures, 16.6. Vaginal hysterectomies: 38 cases, 10 permanently cured; 15 recurrences; 4 deaths from operation; 10 lost sight of after a few months; percentage of cures, 26.3. Total number of cases, 50; 12 cured; general percentage of cures, 24.

He believes that vaginal hysterectomy, with removal of as much parametrium as is possible by this method, and also the removal of the upper half inch or more of the vagina, will accomplish just as much as any other method, and, at the same time, carried with it the least danger as an operation *per se*, for it is extremely rare that a patient succumbs to this operation. It was by following out this rule that the statistics of his own cases up to January, 1899, have been so favorable. During the past four years he has extended the field of operation for the purpose of removing a highly offensive local condition, and in that way making a longer lease of life more comfortable to the patient and less offensive to herself and to her friends.

Carcinoma of the Cervix Uteri.

DR. THADDEUS A. REAMY, Cincinnati, stated that spontaneous recovery from carcinoma does not occur. Unequivocal recovery lasting from ten to twenty-five years of two cases following removal of the diseased and adjacent tissues proves the curability of carcinoma of the cervix and also its local origin. He reported 6 cases of carcinoma of the cervix uteri. No. 1, operated on eighteen years ago, is in good health. No. 2 has gone nine years and No. 3 fifteen years without recurrence; Nos. 4 and 6 twelve years, and No. 5 eighteen years.

Primary Carcinoma of the Vulva.

DR. REUBEN PETERSON, Ann Arbor, Mich., reported four cases of primary carcinoma of the vulva. He presented a résumé of the literature of the subject, and the conclusions drawn therefrom. He spoke of the advisability of removing the inguinal glands. If carcinoma of the vulva is seen and treated early enough, good results can be obtained.

Renal Decapsulation for Puerperal Eclampsia.

DR. GEO. M. EDEBOHLS, New York, read a paper on this subject. This operation for puerperal eclampsia of renal origin is the logical outcome of the encouraging results following the author's operation in cases of chronic Bright's disease. The author said he has successfully performed bilateral renal decapsulation for puerperal eclampsia on a primipara two days after a forced delivery. The convulsions began before labor and continued until the time of operation, the patient having a convulsion while under chloroform on the operating table. This operation, performed Feb. 17, 1903, is believed to represent the first instance of renal decapsulation, or, for that matter, of any operation on the kidney or kidneys ever undertaken for the cure of puerperal convulsions. The favorable results, both immediate and remote, in this case, full details of which are given in the paper, at once assign a place to renal decapsulation as one of the resources at the command of the profession in the treatment of puerperal eclampsia. He said a woman who is suffering from uremic convulsions is entitled to the positive benefits of decapsulation, whether pregnant, in labor or in the puerperium.

Should the Uterus Be Removed when the Ovaries and Tubes Are Removed in Cases of Double Pyosalpinx when Operating Either Through the Abdomen or the Vagina?

This topic was discussed in a series of papers.

DR. ANDREW F. CURRIER, New York, stated that if this is proposed as a matter of routine he would reply emphatically no. If it is proposed as an expedient, when the uterus itself is diseased extensively, he would say yes. It may also be removed if it has been greatly injured in the extrication of the appendages, or if it should seem to be required as a means of controlling troublesome hemorrhage. To remove the uterus in a young woman may possibly produce an unfavorable mental effect as a consequence, near or remote. To remove the uterus of a woman near, at or past the menopause, might add an element of risk to the operation. To remove the uterus might weaken the pelvic floor and introduce an element of danger from enterocele. To remove the organ unnecessarily is bad morally, for it tends to establish the impression of the unimportance of the organ, and that it may be unhesitatingly extirpated by any one who has the requisite skill. To remove the uterus on the ground that it may possibly be the seat of malignant disease in the future is assuming more than the clinical history teaches in the great majority of cases, and is, moreover, a reproach to surgery, making it destructive instead of conservative.

DR. PHILANDER A. HARRIS, Paterson, N. J., stated that when suppuration has become well established in both tubes their exsection is the only operation which can be relied on to effect a cure. By exsection is meant the removal of the lumen of the tube to the uterine mucosa. Less radical operations, as hemisection and disinfection of the ampulla and larger portions of the tube, probing and washing of the tube and amputation of distal portions of pus tubes, are incomplete operations, and are proportionately unsuccessful in that they leave behind a diseased sinus, which not only continues to exist, but is productive of discomfort and other ill consequences to a greater or less extent. In bilateral exsection of double pyosalpinx, sufficient ovarian stroma may be left to influence and continue menstruation in at least 95 per cent. of any large class of cases operated on. The ovaries frequently participate in suppuration, which they derive from pus tubes. But in them suppuration is more easily terminated, and exsection is not advised excepting for extensive abscess of the ovary at the time the tubes are exsected, or a belief or knowledge that the sup-

puration in the ovary is tubercular in character. Simple excision of double pyosalpinx affords the maximum degree of relief, with a minimum of mutilation, and interference with the functions of the pelvic organs. The complaints arising from the existence of endometritis often cease after simple excision of double pyosalpinx. If the symptoms of endometritis continue and greatly harass the patient, the uterus may be removed by vaginal section. The price of removal of the uterus in every case of double pyosalpinx may be partly estimated by the following results: (1) Loss of menstruation in every instance. (2) Partial or complete extinction of the sexual quality in a large proportion of the cases, together with incomplete physical capacity for sexual participation. (3) Injury to the nervous system of the patient, arising from her knowledge and appreciation that she has been prematurely and possibly unnecessarily deprived of these and other qualities which render her physically and, to a certain extent, morally inferior to other women.

DR. I. S. STONE, Washington, D. C., stated that no organ should be removed unless it is absolutely necessary. In a large majority of cases the pus found in diseased adnexa is sterile. It follows that the chief element of danger from sepsis is eliminated, and the uterus is not the seat of dangerous microbic infection. The exception to the above rule may be found in puerperal infections. When purulent adnexa are removed the uterine cornua should be excised, and the uterus permanently sealed, and thus made a barrier against further infection and also to permit effective treatment addressed to the uterine cavity, if necessary. Hysterectomy requires additional time, causes further traumatism and necessitates changes in the anatomic relations of the vagina, bladder, etc. If necessary to drain the pelvis by way of the vagina the usual route through the cul-de-sac posterior to the uterus answered every purpose; finally, a number of women object to panhysterectomy, and, besides, the question of its effect on the mental status of the patient is *sub judice*.

DR. MATTHEW D. MANN, Buffalo, N. Y., said that the almost sole cause of pus tubes is gonorrhea, though there may be a mixed infection. The uterus is usually infected and may make trouble afterward, and be the cause of spreading the infection. The uterus is no longer of any use. Menstruation does not always stop after the removal of the tubes and ovaries, and if it remains, it might become excessive and cause trouble. The uterus might become the seat of cancerous disease. In acute infection the removal of the uterus affords the best means of securing drainage. The results by the vaginal route, where the uterus is always removed, warrant its removal by the abdominal route. The woman's sexual life is unaffected by the removal of the uterus. The additional time taken for its removal is more than counterbalanced by the securing of good drainage.

DR. CHARLES P. NOBLE, Philadelphia, said that of hysterectomy for circumscribed pus limited to the uterine appendages, that is, pyosalpinx or abscess of the ovary, he has had 58 cases, 1 death, a mortality of 1.7 per cent. Of hysterectomy for intraperitoneal abscess, in addition to pus in the uterine appendages, he has had 6 cases, 4 deaths, a mortality of 66 per cent. Of appendages removed for circumscribed pus contained in the tube or ovary, that is, pyosalpinx or abscess of the ovary, 76 cases, 7 deaths, a mortality of 9.2 per cent. Of appendages removed for circumscribed pus contained in a tube or ovary since Jan. 1, 1895, 36 cases, 2 deaths, a mortality of 5.5 per cent. Of appendages removed for intraperitoneal abscess in addition to pus in ovary and tube, 22 cases, 5 deaths, a mortality of 22.7 per cent. Incision and drainage for pelvic suppuration, 58 cases, 1 death, a mortality of 1.7 per cent.

Uretero-Cystotomy.

DR. J. WESLEY BOVÉE, Washington, D. C., read this paper, narrating the history of the operation, pointing out the indications, diagnosis, routes and methods of operation, complications, technic, after-treatment, and detailing histories of cases.

Occurrence of Gallstones in Insane Women.

DR. WALTER P. MANTON, Detroit, stated that cholelithiasis is of frequent occurrence among insane women, but that symptoms are usually wanting, so that statistics must be obtained solely from autopsy findings. From his experience at the Eastern Michigan Asylum, he finds that gallstones are present in rather more than 26 per cent. of the patients dying at that institution in whom the abdominal contents was examined. The paper was intended only as a small contribution to the knowledge of the subject and as preliminary to more extensive study of gallstones in insane women at some future time.

A Method of Sterilization.

DR. PHILANDER A. HARRIS of Paterson, N. J., read a paper on "Excision of the Proximal Ends of the Fallopian Tubes at Their Origin in the Uterus, the Operation of Choice, for the Extremely Rare Cases Wherein Sterility is Desirable." The object of this operation is to take the place of the Porro operation, the bilateral removal of the ovaries, or to take the place of bilateral excision of healthy tubes. Menstruation would not be sacrificed. Every advantage arising from retention of the ovaries would be preserved to the individual, excepting the single item of impregnation. Tubes thus disconnected from the uterus would probably remain immune from future gonorrheal infection of the endometrium. A patient thus sterilized can doubtless be cured of her sterility by implantation of the tubes through the uterine cornua to the uterine cavity. While there are doubtless cases which are characterized by certain conditions of the body, mind or nervous system, calling for the voluntary production of sterility, there must necessarily be a very limited field for the employment of this operation. If a case is to be surgically sterilized, it should be effected in such manner that the patient and her friends may feel that she can be restored to fertility should the pathologic factors of her case so abate or disappear as to render impregnation and pregnancy permissible. No attempt was made by the author to present the indications for an operation which would produce sterility for temporary purposes, although such instances are believed to be within the range of possibility, and if so, emphasized the advantage of doing the primary operation in the manner proposed.

Personal Experience in Operations on Diabetic Patients.

DR. CHARLES P. NOBLE, Philadelphia, stated that of the 7 patients operated on by him, 6 made good recoveries and 1 died of diabetic coma. In the 6 remaining cases the healing of the wounds and the general progress of the patients toward recovery were not different from that in patients not the subject of glycosuria.

In looking up the literature of the subject he has been able to add to his own list 62 cases of operations on diabetics, on those organs of the body which are the special field of the gynecologist and abdominal surgeon, making a total of 69 cases.

The contraindication to operation was strongest in those patients suffering markedly from the constitutional symptoms of diabetes—poor nutrition, wasting, intense thirst and morbid appetite.

CONGRESS OF AMERICAN PHYSICIANS AND SURGEONS.

Sixth Session, held in Washington, D. C., May 12 to 14, 1903.

The President, Dr. W. W. Keen, Philadelphia, in the Chair.

(*Continued from page 1525.*)

The subject of the Wednesday meeting was "The Medical and Surgical Aspects of the Diseases of the Gall Bladder and Bile Ducts."

The Diagnosis of Affections of the Gall Bladder and Bile Ducts.

DR. JOHN H. MUSSER, Philadelphia, pleaded for the early recognition of the primary inflammation of the gall bladder and ducts. In his opinion, there would be very little seen of the secondary stages if the early ones were recognized. He laid great stress on laboratory methods of diagnosis, and referred to the presence of leucocytes in these conditions. Among other things with which gall-bladder disease is confused, he mentioned cholelithiasis, congestion of the liver, perforation of the intestinal tract, subdiaphragmatic abscess, pleurisy, pneumonia, pancreatic disease, syphilis of the liver, simple abscess of the liver and primary cancer of the gall bladder. In his opinion there is still much to be learned about hepatic function, and one must rely very largely on the urine.

The Differential Diagnosis.

DR. GEORGE E. BREWER, New York, claimed that much of the information obtained in reference to this disease has been due to the conditions found at the time of operation. He divided the subject into (1) calculus disease, (2) inflammatory disease, and (3) new growths, and called especial attention to the pain in impacted gallstone. The presence of the gall bladder near the median line, as well as its congenital absence, was referred to, and the cause of the pain in gall-bladder disease was believed to be due to inflammatory conditions, although it may be due to pressure and spasm. The most characteristic symptom of cholelithiasis was considered to be the pain, while the most conspicuous symptoms of stone in the common duct were mentioned as jaundice, pain and fever. In the author's opinion, inflammation of the gall bladder is present in most cases coming under the surgeon's hands, but a tumor of the gall bladder was rarely found. The three chief symptoms of obstruction were given as (1) pain, (2) tumor and (3) jaundice, and the fact that gallstones are rarely found in young persons, say under 20, was alluded to.

The Etiology and Pathology of Gallstone.

DR. C. A. HERTER, New York, considered the chief constituents of gallstones to be cholesterin and bilirubin. He showed a table giving the results in the formation of cholesterin after injections into the gall bladder. After mentioning that cholesterin is increased in pneumonia, he stated that the quantity of this substance in the blood was very little in relation to the quantity in the bile. As to bacteria in gallstones, reference was made to the work of Welch, who found the *Streptococcus pyogenes*, or the colon bacillus, while a bacterial nidus was found in one-half of the stones. In reference to the artificial production of stone the principal obstacle to its accomplishment was believed to be the flow of bile. Inflammation of the gall bladder superinduced by ascites and unaccompanied by any infection, is not itself sufficient to give rise to a very marked increase in the percentage of cholesterin in the bile. The author stated that gallstones may be produced experimentally by the introduction of bacteria, although he felt there was considerable evidence that we are going a little too far in assuming that all cases of gallstone are due to bacteria and nothing else.

Stomach Complications.

PROF. C. A. EWALD, Berlin, read a paper on "The Diseases of the Gall Bladder and Bile Ducts, with Especial Reference to Diseases of the Stomach and Intestines," in which he stated that gallstones arise from a catarrhal condition of the mucosa, often occurring in members of the same family, showing a predisposition. He raised a question as to gallstones causing pain, stating that the colic may be due to contractions or inflammations, with or without stone. He looked on the pain as being a very variable factor, and as sometimes originating from the transverse colon. The importance of chemical and microscopic examinations of the gastric contents was spoken of, and the statement made that hyperchlorhydria was frequently present and disappeared with the attack. He stated that gall-bladder colic was variable, irregular and frequently occurred at night, and called attention to the similarity between gastric crises and gallstone colic. The importance of differentiation between gall-bladder colic and acute pancreatic disease was briefly alluded to, and it was claimed that a tumor of the gall bladder was more frequently absent than present. The stones may perforate into the colon, and the contents of the intestines may be vomited, while infection of the bile passages from carcinoma occurs fairly frequently. The author believes that 95 per cent. of all cases of carcinoma are complicated with cholelithiasis. He made the statement that carcinoma is more frequent in women than in men, the percentage being about four to one, and called attention to the fact that it was unknown why stone should sometimes cause ulceration and at other times carcinoma. In his opinion carcinoma of the biliary passages is less frequent in women than in men, and expressed himself as being in favor of medical treatment in gall-bladder cases being employed first. He advised the ordinary known remedies during an attack of acute inflammation, but where they were unusually severe he recommended prompt operation, as well as in recurrent attack. The possible fatal result of a parenchymatous hemorrhage was alluded to, and also the unfortunate results which sometimes follow operation.

A Study of 534 Operations on the Gall Bladder and Bile Ducts.

DR. WILLIAM J. MAYO, Rochester, Minn., commenced his paper with the statement that in Nature's defense against infection within the abdominal cavity there are three weak situations, the fallopian tube, the appendix and the gall bladder, of which the first to gain an accepted surgical position was the infective lesions of the tube. While he considered that the appendix had reached an assured place in surgery, he considered that the gall bladder had been slow to receive that attention from the medical public which its importance deserved. He compared the similarity between the appendix and the gall bladder, and explained why perforation and sudden death are less frequent in diseases of the gall bladder than the appendix. He showed the relative preponderance of the two conditions according to the age of life of the patient, and also the relative frequency of operations on the appendix, gall bladder, ovaries and tubes and stomach. The 534 operations on the gall bladder and bile passages which formed the basis of this paper were performed on 518 patients, with 19 deaths, a mortality of 3.5 per cent. Of the total number, 510 were for gallstone disease, with a mortality of 3 per cent. Considering stones in the gall bladder as uncomplicated, there were 208 cases with 2 deaths, a mortality of less than 1 per cent. While, in his opinion, the colic is the standard of measure in the diagnosis of gallstones, yet it is but a small part of the clinical picture, and is readily diagnosticated. While it is known that the large majority of adults with gallstones never suffer, it is equally true that these stones only slumber, with the possibility of a painful awakening. The ideal operation, which is complete closure of the gall-bladder incision, has been successful in many of these cases of slumbering stone, while the hope of the patient that the stones will pass down and out through the common duct frequently materializes; usually, according to the author, there were more behind, and he has never operated on a patient who has passed calculi without finding more in the gall bladder. Commenting on the safety of operations on the common duct, he claimed that the mortality depended more on the condition of the patient than any difficulties in the technic, and gave Dr. Robson the credit for the great improvement in the technic. Eighteen times has he met with chronic pancreatitis in connection with gallstone disease, and in four of them cholecyst-duodenostomy was successfully performed, while in the remaining twelve no special treatment was adopted. The average stay in the hospital was slightly less than three weeks, the attempt being to remove all of the stones at the primary operation. Malignant disease of the gall bladder and bile duct was met twenty-four times, in some of which the exact origin could not be determined. As the presence of gallstones only occurred in 15 per cent. of secondary cancers of the gall bladder, and in over 80 per cent. of primary cancers, it was concluded that they were the chief etiologic factors in the production of malignant disease.

Surgical Treatment of Obstruction of the Common Bile Duct by Stone or Tumor.

PROF. HANS KEHR, Halberstadt, looked on the pressure of bile as the chief factor in forcing stones through the duct. He did not think one could determine at the time of the colic whether the stones were large or small, nor whether they passed through the ductus choledochus or not. Acute obstructions of the duct are rare, and sometimes a spontaneous cure may result, but he attached but little importance to the passage of a stone, because there were probably others. If pancreatic trouble be associated with stone in the gall bladder he advised treating this at the same time, but was not in favor of breaking up the stone, as all the broken parts might not pass through. He believed that drainage was more quickly performed than suturing, and felt that in colotomy

with sutures, many stones were left behind. In his opinion the success of the operation depended on the pathologic conditions present. He urged the use of a free abdominal incision, and a generous quantity of gauze packing, believing they played a most important part in the results obtained. While he believed that the treatment of obstruction of the ductus choledochus properly belonged to internal medicine, he advised against waiting more than three months before operating. He did not think an incision into the hepatic duct was very often necessary, but attached great importance to the after-treatment following operation.

DISCUSSION.

DR. FRANK BILLINGS, Chicago, commented on the fact that surgeons had, in the greater part of the operations done in the last few years, so enlightened us in the diagnosis of these conditions that it can be much more readily made than formerly, but in spite of this, considered it was absolutely impossible to make a rational diagnosis in many cases. The most prominent symptom referred to by present writers is pain, usually in the region of the gall-bladder apparatus, not always severe, nor always colicky in character. Points of tenderness may be present without any pain, especially in cases whose abdominal walls are not too thick. Within one year two patients have called on the author, both of whom had been operated on for cystic gallstones without the stones having been found, the condition in each case being that of gastric crises, due to locomotor ataxia. The fact that cases of appendicitis were often operated on for gallstone, and that floating kidney and inflamed appendix may refer pain to the gall-bladder region, was briefly noted, and the statement made that in one sense gallstones are harmless, and do not present symptoms sufficient to make a diagnosis until there is infection of the gall-bladder region. In the Doctor's opinion, by the time we are able to make a diagnosis of gallstone the case is no longer a medical disease, but a surgical one. He emphasized very strongly the fact that if once a diagnosis is made and one can elicit the information that gallstones have repeatedly occurred in the past, an operation is indicated and should be performed at once. However, he was in favor beforehand of trying to get rid of the infection by proper food, drink, respiratory exercise, and in the case of women by adjustment of the dress, but if these failed he urged operation at once.

DR. GEORGE DOCK, Ann Arbor, Mich., commented on the fact that nothing but carelessness or ignorance in many cases prevented patients from being sent to the surgeon, and he believed this was largely due to their not knowing the beneficial results to be obtained by surgical treatment. Cases of gallstone disease resemble appendicitis and renal colic, but a careful examination will in most cases clear up the diagnosis satisfactorily. In his opinion, more has been learned from the surgeon than from the pathologist in these cases, largely owing to the fact that many of them do not come to autopsy at all, so that the pathologist does not have an opportunity of studying them.

DR. HENRY SEWALL, after stating that the bile is a continuous secretion, with rhythmic accelerations due to contraction of the larger bile ducts, said it would be interesting to consider how the bile got into the gall bladder during the intervals between its outpourings into the intestine, which he proceeded briefly to explain. He said it was granted on all sides that the dangers of gallstone disease depend on bacterial invasion of the gall bladder and gall ducts, and that the formation of gallstones may presuppose such invasion. Commenting on the entrance of germs from the intestine, the sphincter muscle of the duct must form a useful barrier, but germs must be constantly penetrating the common duct, and once in the duct they must find ready access to the gall bladder, except for the possible filtering power of the Heisterian valve in the cystic duct. He supposed it was well known that all factors restricting the free outflowing of bile (dress, habits of eating, etc.) predisposed to gallstones, and also if the bile, when secreted by the liver, is already infected, it can not serve as a cleansing fluid. In his opinion, a prominent or principal use of the gall bladder is to serve as a flush tank for the common and cystic duct, and it maybe suspected that atrophy or extirpation of the gall bladder might predispose to cholangitis.

DR. E. G. JANEWAY, New York, urged that the character of the food taken should be under the control of the physician.

PROF. B. S. A. MOYNIHAN, Leeds, England, stated that although operations on the common duct used to be considered extremely serious, they were not losing at the present time more than 3 or 4 per cent., and he attributed this improvement to the kind of incision which is being used, through which one is able to see the gall bladder and pull out through the wound about one-third of the liver. He expressed considerable satisfaction from this little detail in the operation, and claimed to be able to operate on the common duct in twenty to thirty minutes. One is being driven often and oftener to an inspection of the gall bladder, making it necessary to employ an incision which would permit of this.

(To be continued.)

FOURTEENTH INTERNATIONAL MEDICAL CONGRESS.

Held at Madrid, Spain, April 23-30, 1903.

(Continued from page 1525.)

Section on Medicine.

The second session was completely monopolized by long communications from physicians belonging to the Latin races, dealing largely with diseases endemic in Southern Europe, and the discussions were carried into the other sessions. Maragliano, Genoa, Italy, the honorary president of the section, called attention to the fact that the congress was losing its true character as an international gathering for the rapid and concise interchange of views, but his words were without effect. Drs. Espina and Castellino, Naples, reviewed the current opinions in regard to the "Pathogenesis of Cardiac Arrhythmia."

Several of the papers presented in the third session have already been mentioned. Dr. Sanudo, Madrid, discussed the subject of the "Diagnosis of Myocarditis," but presented no new ideas.

Radiography in Biliary Lithiasis.

Drs. Gasteln and Yogue, Madrid, reported that they had radiographed a large number of cases, subsequently submitting their findings to the control of operation or autopsy. They found that radiography does not permit of differentiation between stones in the gall bladder and dense pericystic adhesions or hydatid cysts. Thus it fails just where its aid is most needed.

Rheumatism.

Dr. Ibauez, Valencia, asserted that rheumatism is not of microbic nature, but due to faulty metabolism with accumulation of uric acid. All the forms of rheumatism and gout are manifestations of the same disease.

In the fourth session Dr. Francos, Saragossa, reviewed the present standpoint with regard to pleurisies.

Salocreol.

Dr. Guezda, Berlin, said that the new drug was a synthesis of the various phenols of creosote and salicylic acids to form an ester. In von Leyden's clinic it has proven of great value in the treatment of rheumatic joints, of scrofulous glands and of the adenopathies of measles and scarlatinal anginas. It is applied with a brush or rubbed in as the degree of tenderness of the parts dictates, and thus applied appears in the urine in a few hours. Its chief value is in reducing or abolishing the tendency to suppuration of the acute and chronic glandular swellings, and has established its efficacy as the best drug in erysipelas.

Therapeutic Action of Air Baths and Sun Baths.

Dr. Singer, Berlin, described the physiologic action of this treatment, which is both tonic and sedative. It is applicable in a large number of conditions, but chiefly in neurasthenia.

Dr. Mariani, Madrid, spoke on the "Curability of Tuberculosis," and Dr. Iglesias on what he called "Madrid Fever." Dr. Mariani also discussed "Hysteria as an Agent in the Production of Aortic Lesions."

He further called attention to the value of "Blood Enemas in Chlorosis." He stated that he had experimented for 20

years in the treatment of anemias by this method. It is ineffectual in symptomatic anemias, but in chloranemias of the most advanced type, which have resisted every other form of treatment, it gives invariably good results. The blood of a sheep, aseptically secured, fresh each day, and defibrinated, is injected in amounts of 300 c.c. There are never any toxic or intestinal disturbances, but the enemas are followed by a rapid improvement in all the symptoms, paralleled by the tendency to normal of the blood count. Moreover, the cure is lasting. The manner of absorption of the blood is still unexplained.

Rectal Injections of Antistreptococcus Serum.

Sir Dyce Duckworth, London, described a typical case of acute infectious endocarditis, with fever, chills, petechial rash and joint symptoms, which yielded to this form of treatment after every other method had proven fruitless.

Etiology of Acute Rheumatism.

This communication by Drs. Poynton and Paine, London, will be reviewed later.

Dr. Larand, Carlsbad, emphasized its great importance. He is inclined to accept the conclusions presented. Dr. Singer, Vienna, stated that the so-called diplococcus referred to was identical with a streptococcus which he had isolated two years ago, but had found that it was not specific. Dr. Blumenthal, Berlin, said that agglutination and immunization occurred only with the specific form of streptococcus originally employed, and not with others. There was no one streptococcus of rheumatism.

Dr. Moragas, Madrid, discussed the treatment of hemoptysis.

Mucomembranous Colitis and Appendicitis.

Dr. F. Bernard, Plombières, has collected 1,100 cases of mucomembranous colitis, of which 76, or 6.9 per cent., presented unmistakable evidence of appendicitis, while many others had probable symptoms. In 12 cases removal of the appendix was followed by cure of the colitis. Ordinarily, the syndrome of appendicitis is present, but not marked, and the symptom-complex might be characterized as "appendicism." Pathologically it is reasonable to assume that the mucosa of the appendix participates in the disease present in the cecum and colon; the coexistence of enterolithiasis is also probably an etiologic factor in the appendicitis.

Pseudo Uremia in Urinary Lithiasis.

Dr. Galland Gleize, Vittel, said that he had observed cases of "gravel" of long standing, in which there occurred, with more or less suddenness, attacks which in many points simulated a true uremia. Examination of the urine, however, gave no support to the theory of a nephritis. The attacks were marked by a predominance of gastrointestinal symptoms; they usually lasted much longer than is customary in uremic attacks and terminated abruptly. The termination was marked by an abundant elimination of sand and calculi. He concludes that the phenomenon is simply a form of nephritic colic of gastrointestinal type.

Dr. Melcior, Levida, recommended the treatment of cholera with quinin.

At the conclusion of the session telegrams expressing gratitude were sent to the men who have contributed so much to the elucidation of the etiology of malarial infection, Laveran, Baccelli, Manson, Grassi, Koch and Ross.

(To be continued.)

PHILADELPHIA ACADEMY OF SURGERY.

Special Meeting, held May 11, 1903.

The president, Dr. Richard H. Harte, in the Chair.

Mayo on Stomach Surgery.

DR. WILLIAM J. MAYO, Rochester, Minn., read a paper entitled "A Review of 303 Operations on the Stomach and First Portion of the Duodenum," 286 of which were taken from the records of St. Mary's Hospital, Rochester, Minn., and 17 from the Minnesota State Hospital for the Insane at Rochester and St. Peter. The average age was 42, 42 per cent. being males and 58 per cent. females. There were 26 cases of duodenal ulcer with two deaths. Lesions in the first portion of the duodenum can not be easily differentiated from lesions in the stomach which are due to the same causes.

He divided lesions in the first portion of the duodenum into two groups, first, those caused by ulcer; and, second, those associated with the gall-bladder disease. Of the ulcers limited to the duodenum, there was 1 acute perforating, 2 chronic perforating, 5 active and 3 cicatricial contractions with obstructive symptoms. Two deaths occurred, one from pneumonia and the other from exhaustion following gastroenterostomy.

DISEASES OF THE STOMACH CLASSIFIED.

Dr. Mayo divided the gastric affection into two classes:

1. Gastric ulcer and associated causes of serious disturbance.
2. Cancer of the stomach.

Out of the 303 cases reported in this paper 277 involved the stomach, with 28 deaths, or 10.1 per cent.; 168 of these cases were in the benign group with 11 deaths. These cases included all the non-malignant obstructions or conditions calling for operation for gastric pain, with or without acute exacerbation. In the majority of the cases the perverted stomach secretion seemed to be the most important cause, which is shown by the almost constant association of excessive secretions with gastric ulcer. Also in that part of the duodenum not protected by alkaline juices the same ulcers have occurred after jejunostomy has been performed for the purpose of drainage. Drainage to relieve the excessive amount of secretion and thus produce healing of the ulcer is of great importance.

GASTRIC ULCER CLASSIFIED.

The following classification of gastric ulcer was made:

1. Round ulcer: (*a*) acute; (*b*) chronic. They have the definite feature that there is but little thickening about the base of the ulcer.

2. Mucous erosions, a condition which must be accepted with caution.

3. Chronic ulcer with thickened base and usually irregular in form.

4. Benign obstruction without regard to cause, although usually of benign origin.

The last two classes are the ones which most frequently call for operation, chronic ulcer being usually found in adults and is more frequent in females. Spasm of the pylorus was thought to be one of the most important causes of the retention of excessive gastric secretion.

There were 109 cases of cancer of the stomach, with 17 deaths, or 15.6 per cent. Late diagnosis and cachexia make the report of this group rather discouraging; most of the operations were of a palliative character. Early exploratory incision in suspected cases was recommended, and all the vascular and lymphatic connections with the diseased area should be removed. He then gave a full description of the method he employed in doing the operation.

Difficulty of Diagnosis.

DR. ALBERT VANDER VEER, Albany, referred to the difficulty of diagnosing conditions in the lower third of the stomach and the upper third of the duodenum. He felt that many of the cases were left too long solely under the treatment of the medical man, and when the clinical history and examination of the patient do not reveal clearly the conditions present he recommended exploratory operation.

Murphy Button Versus Suture.

MR. B. G. A. MOYNIHAN, Leeds, England, felt that the operation of pyloroplasty could be practically abandoned, he having done the operation three times, and in only one of the three cases did it prove satisfactory. He did not feel that the operation was in any particular as satisfactory as the operation of gastroenterostomy, stating that he had operated on seventy-five cases by the latter method with only one death. He stated that he had not used the Murphy button in the last sixty-five cases, as he believed the simple suture was preferable, but stated that in the employment of the Murphy button in the first of his cases, he had noticed that it destroyed a considerable portion of the mucous membrane around the union, which he considered of very great importance, and which he

had been doing in all his operations. By the method which he has employed the section of the stomach and the section of the jejunum where the anastomosis is to be made are each grasped in a pair of forceps and brought outside of the abdomen, and the continuous suture applied. Malignant disease of the stomach he believed came principally through the lymphatic system, and in the operation therefor, he believed that first the greater curvature and then the lesser curvature should be removed. Duodenal ulcer he believed to be rarely primary. Gastric ulcer is so frequently multiple that he did not believe excision thereof to be practicable, as future trouble may result from a remaining undiscovered ulcer.

Importance of Early Treatment.

DR. J. B. MURPHY, Chicago, said the great majority of all cases of carcinoma occur in the pyloric end of the stomach, and as the first set of glands to become involved by gravity are the lymphatic glands, any operation which is expected to produce permanent results must look to the removal of these glands, early operation being imperative. About 10 per cent. of all cases of gastric carcinoma occur in the cardiac end and are practically unamenable to treatment. The surgeon usually sees the cases of gastric disease numerically in the following order: (1) gastric carcinoma; (2) gastric ulcer; (3) pyloric stenosis, and (4) pyloric retention. As the gastric carcinoma is usually a sequence of the other conditions, he felt that in order to obtain the best results by operative treatment, the order in which these cases were seen should be the reverse. He believed that in order for the operation of pylorectomy to attain the best possible results, it was necessary that it should be done early. He referred to the fact that the cases of gastroptosis are treated erroneously by the medical man by washing out the stomach and reducing the amount of food, on the theory that the condition is due to a weakening of the wall of the stomach, whereas, as has been definitely demonstrated by Dr. Mayo, it is due to a mechanical condition at the pylorus. He felt that the all-important factor in the operation was to secure permanent drainage of the most dependent portion of the stomach, and the only operation which had been used a sufficient length of time to justify the statement that it was the best he felt was gastroenterostomy. He felt that if pyloroplasty was going to be of benefit to the patients it must be done early, in order to avoid ulceration and changes in the gastric secretions which are apt to lead on to malignant disease. He also expressed the opinion that so soon as it became demonstrated to the physician that surgical operations were safe and afforded great relief, the cases would be sent to the surgeon much earlier.

DR. J. M. T. FINNEY, Baltimore, believed that the main question was thorough drainage, and any method that would produce this result he felt would be satisfactory. He advocated early exploratory operation under cocain.

PROF. VON MIKULICZ-RADECKI, Breslau, Germany, spoke in German on the subject.

On motion a unanimous vote of thanks was tendered those who had spoken.

AMERICAN PROCTOLOGIC SOCIETY.

Fifth Annual Meeting, held in New Orleans, May 5 and 6, 1903.

The President, Dr. S. T. Earle, Baltimore, in the Chair.

After the transaction of preliminary business, President Earle delivered an able address on "The Qualifications for Membership in the American Protologic Society."

The papers presented at this meeting were of unusual interest.

X-Ray Therapy in Ano-Rectal Diseases.

DR. J. RAWSON PENNINGTON dwelt in this paper on the importance and efficiency of this agent in the treatment of pruritis ani where the cause is local.

The society asked Dr. Pennington to continue his searches in x ray therapy in rectal diseases.

Tubercular Ulceration of the Rectum and Anus.

DR. L. H. ADLER, Philadelphia, stated that tuberculosis is now recognized as the cause of a number of conditions about the anus and rectum, the pathology of which was formerly obscure. The disease may be a primary process, but in the majority of instances it is secondary to similar changes in other organs. It may involve any portion of the rectum or the skin about the same; its most frequent site, in the author's experience, however, is at the mucocutaneous junction. The affection is always due to the tubercle bacillus. Any plan of treatment, to be of benefit, must, in a large measure, be directed to the general constitutional condition; and for this purpose, pure air, forced feeding and all the hygienic and medicinal measures should be adopted as are employed in general tuberculosis. The local treatment has for its main objects the destruction of the tubercle bacilli and the establishment of a healthy reparative process. The Paquelin or the galvano-cautery, chemical caustics, such as chlorid of zinc, nitric acid and acid nitrate of mercury, the curette and the *x*-ray, have been employed for these purposes and with varying results.

DR. LEON STRAUS, St. Louis, reported cases of primary tuberculosis of the rectum.

Atony of the Rectum and Anal Sphincters; Its Etiology, Pathology, Diagnosis and Treatment.

DR. WILLIAM BODENHAMER, New York, said the condition is most commonly met in delicate women of a lax muscular fiber, and in those whose sedentary occupations lead to a lack of regularity of function. The first desideratum in treatment is a regular habit respecting a daily evacuation of the rectum. "This may be aided and often attained by simple means, such as the injection of half a pint of cold water into the rectum at the regular time of going to stool; cold being tonic, stimulant and astringent and acts somewhat similarly to nux vomica by exciting the sensibility and contractility of the organ; but it should be discontinued as soon as the object of its use has been attained. In the more obstinate cases, however, the chief remedies should be nux vomica, alone or combined with some other ingredients, together with the employment of rectal injections composed of powerful astringents and tonic substances, with the intention of inducing contraction, corrugation and condensation of the relaxed and weak muscular fibers of the rectum, by which they become shorter and firmer, and thus aid in diminishing the morbid organ to its normal dimensions and tone."

Obstipation.

DR. JOHN L. JELKS, Memphis, Tenn., read a paper entitled "Obstipation, Its Causes, Effects, Diagnosis and Treatment." He stated: "Obstipation is the term used by proctologists to denote mechanical obstruction of the bowel, and is preferred to the generic term of which obstipation is one variety." He classed the causative factors as follows: 1, Extravisceral; 2, perivisceral; 3, visceral; 4, intravisceral. One of the chief facts which the author wished to forcibly express is that other factors may and do cause obstipation or obstructive constipation, and a careful discrimination should be made before an operation is performed on a supposed obstructing rectal valve.

DR. B. MERRILL RICKETTS, Cincinnati, exhibited an instrument, and Dr. George T. Cooke, Indianapolis, discussed the subject of "Hemorrhoids." These elicited considerable discussion, and Dr. Ricketts was instructed to make further report on the use of the angiotribe in the treatment of hemorrhoids. The discussion disclosed the approval of various methods of treatment of hemorrhoids, but showed that none of them are ideal.

The Treatment of Anal and Rectal Diseases Without General Anesthesia.

DR. WILLIAM L. DICKINSON, Saginaw, Mich., said: "The treatment of anal and rectal diseases has been so long associated with that of general anesthesia that when a patient presents himself and we have made an examination we unconsciously begin to solve the mental problem of how he will take the anesthetic and the number of days he will be confined to the house after the operation. The time-honored treatment of anal fissure by dilation, under chloroform, was both effective and speedy, but we can accomplish the same results in a little longer time by the use of cocain or eucain. Superficial fistulæ, ischio-rectal abscesses, external hemorrhoids and many cases

of internal hemorrhoids can be operated on under filtration just as well as under general anesthesia. We owe it to our patients and also to ourselves to keep patients from going to the irregular practitioner, for, as regular, educated physicians, we ought to be able to cope with all diseases of the rectum, in an intelligent manner, and thus give entire satisfaction to our patients. Our students should be taught that the greater number of our patients seek our advice and aid for ailments that respond readily to office treatment that can be given without general anesthesia."

Molluscum of the Rectum.

Probably the most interesting paper of the meeting was that of a report on "A Unique Case; Molluscum Fibrosum of the Rectum in a Patient, the Subject of the Typical Skin Lesion," by Dr. A. Bennett Cooke, Nashville. He stated: "The feature of the case which justifies the adjective 'unique' is not the skin disease nor the occurrence of the multiple fibroid tumors in the rectum, but rather the association of the two conditions in the same individual and the further fact that the mucous and cutaneous tumors are identical in structure." He described the patient as emaciated, sallow, nervous and despondent; at least a dozen calls to the stool in twenty-four hours; sphincters relaxed and perianal integument excoriated from the irritating discharges; anal canal patulous, in spite of numerous successive abrasions. The proctoscope revealed the rectum almost completely filled with polypoid tumors, many of them ulcerated and bathed in a muco-purulent blood-stained secretion of exceedingly offensive odor. The growths began in the lowest rectal chamber, varying in size from a bird shot to an almond; the largest were uniformly pedunculated, those intermediate in size had sessile attachments, and the smallest appeared as mere elevations under the mucous membrane, well bedded. It was found that the lesions extended well into the sigmoid colon, smaller in size, and were attended by less inflammation of the mucosa. Beginning below the tumors were removed by torsion with the forceps and by biting them off with a curette against the sharp end of the proctoscope. The hemorrhoid was rather free, so that it was possible to remove only a small number at a sitting. The operation was repeated from time to time during a period of three weeks, when the bowel, as high as could be seen, was clear of all but the smallest tumors. Sixty of the growths were removed; no anesthetic was employed."

Dr. Cooke appended a report from the *Pathologist*, which demonstrated the identity of the skin and rectal lesions. The production was considered a valuable contribution to proctologic literature.

Election of Officers.

The society elected the following officers for the ensuing year: President, Dr. William M. Beach, Pittsburg; vice-president, Dr. Leon Straus, St. Louis; secretary-treasurer, Dr. A. Bennett Cooke, Nashville.

The next meeting will be in Atlantic City, June 7 and 8, 1904.

AMERICAN ACADEMY OF MEDICINE.

Twenty-eighth Annual Meeting, held in Washington, D. C., May 11 and 12, 1903.

(*Continued from page 1529.*)

The President, Dr. Charles McIntire, Easton, Pa., in the Chair.

Gonorrhea as a Social Danger.

The scientific session was opened on the second day by a paper with this title by Dr. Prince A. Morrow, New York. A distinction should be recognized between cases in which the disease is contracted through voluntary exposure to contagion under immoral conditions and those in which contagion is conveyed through innocent relations. Modern acquisitions to knowledge, especially of gonorrhea in women, have established on a scientific basis the magnified importance of gonorrhea as a social peril. The extent and degree of this danger, Dr. Morrow claims, are not sufficiently appreciated by the profession.

The paper considered the principal modes in which gonorrhea of the innocent may be manifest as a result of marital infection, and detailed the remedies, emphasizing the protective duty devolving on the physician.

The paper was discussed by Drs. Gerrish, Benedict, Bulkley and Risley.

Electives in Anatomy.

The "Symposium On Required and Elective Studies in the Medical Course" was then opened by Dr. F. H. Gerrish, Portland. A knowledge of the structure of the entire body is fundamentally important, the author stated, for the medical man, even if his work is in a limited field, for he can not be the best kind of a specialist unless he is an all-round practitioner at the start, and it is injudicious to encourage the undergraduate to undertake additional anatomic work. Electives, he claimed, are appropriate for those who have attained the doctorate, and wish to broaden and deepen their knowledge in particular lines.

The Teaching of Pathology in the Medical Curriculum.

DR. WILLIAM H. WELCH, Baltimore, in this paper, considered the period in the medical course for teaching pathology; the apportionment of laboratory work and didactic teaching; recitations and conferences; the extent to which various branches of pathologic teaching may be combined in single course; the character of examinations, and the methods adopted at the Johns Hopkins University. The student should have a good training in microscopic anatomy and histology and a training in physiology in order to enable him to take up with any profit the study of pathology, and he should keep in touch with pathology during the remaining years of his course.

It has been found advantageous to separate the more immediate and direct practical applications of pathology to clinical medicine from the course in the second year and to transmit it to the third and fourth years of the course. The plan is to begin with bacteriology and keep it in close relation with histology or pathology. Didactic lectures are not dispensed with, but go in as they are needed in connection with the course. Disturbance of circulation, disturbance of normal heat, etc., which do not admit of demonstration very readily, are taken up in their proper connection in a series of lectures in connection with the diseases of circulation.

Regarding the matter of electives, Dr. Welch regards the statement of Dr. Bowditch as the most comprehensive; the first essential being to fix on a minimum in the subject which must be taught, that is, every student must have this minimum knowledge of pathology. The difficulty comes in determining the minimum. That, however, is the plan in operation in Johns Hopkins University. The amount of teaching has been lessened and courses established which are elective in pathologic anatomy, histology and the different departments. Dr. Welch is therefore very much in favor of endorsing the system of electives so far as is possible along the lines elaborated by Dr. Bowditch, so far as he knows them: Determining the minimum requirement in a given subject and then supplying special courses along the different lines, the advantage of this being the well-recognized advantage of optional interchange and also the distinct advantage of taking up one aspect with very great thoroughness, none of which is opposed to Dr. Gerrish's conception that, after all, the main purpose of the medical school is to train medical practitioners. This plan Dr. Welch regards as really conducive to that end.

Internal Medicine: To What Extent Required or Elective in the Medical Course?

DR. SHERMAN G. BONNEY, Denver, gave a few general fundamental considerations relative to the present professional and educational status and discussed some of the recent advances in the methods and character of medical instruction. He gave the definition and scope of the elective system in American medical colleges and the objection to its too general application. The relation of internal medicine to the elective system of instruction is regarded as unique and distinctive.

Required and Elective Dermatology.

DR. L. DUNCAN BULKLEY, New York, in this paper, said that diseases of the skin are notoriously among those about which the least is known by the general medical profession. While many of the colleges have special instructors in this branch, it has not hitherto been taught so as to efficiently inform grad-

uating students. Proper knowledge of dermatology is often most important in general practice, especially in the case of syphilis and the exanthemata, while many of the ordinary diseases of the skin are exceedingly important in their bearing on the health and usefulness of the patient. In order to properly understand the subject of dermatology, which is essentially a clinical branch, Dr. Bulkley claims that there should also be a good knowledge of microscopy and bacteriology. Those contemplating special practice in dermatology should be encouraged to take special courses as electives during the last two years.

A Theory and a Condition as Illustrated by Ophthalmology.

DR. EDWARD JACKSON, Denver, read this paper. He stated that the time-honored theory of one course of undergraduate study, with gradual development years after graduation toward special from general practice, does not now meet the requirements of ophthalmology. Special training should begin in the course preparatory to medicine to attain the best practical results, and a certain part of ophthalmology should enter into the training of every medical student. Certain other things, however, should be taught early in their student career to those who expect to practice ophthalmology. A wise recognition of electives in the medical curriculum may prevent the complete separation of certain specialties from the general practice of medicine and surgery.

DISCUSSION.

DR. BOWDITCH agreed with Dr. Gerrish that the general practitioner has not yet gone by, stating that he would be with us for many years. He also believes with Dr. Gerrish that the elective system affords the best means for training general practitioners. In the Harvard Medical School all the required instruction is condensed into three years.

DR. EDWARD JACKSON spoke of the educational value of the electives. He believes that whether a man is in general practice or in any line of practice, his first object as a practitioner of medicine should be that of original investigation.

How the Modern Physician Can Influence in Decreasing the Birth Rate.

DR. ROLAND G. CURTIN, Philadelphia, in this paper, pointed out that this decrease could be brought about, first, by increasing the expenses of the family in high charges, expensive nursing and extensive outfits; and second, by discouraging advice.

The New Officers.

The following officers were elected: President, Dr. John B. Roberts, Philadelphia; vice-presidents, Drs. T. D. Davis, Pittsburgh, Pa.; James H. McBride, Pasadena, Cal.; J. T. Searcy, Tuscaloosa, Ala.; S. A. Knopf, New York; secretary, Dr. Charles McIntire, Easton, Pa.; treasurer, Dr. E. M. Green, Easton, Pa.; assistant secretary, Dr. Alex R. Craig, Columbia, Pa.

Atlantic City was named as the next place of meeting.

Therapeutics.

[It is the aim of this department to aid the general practitioner by giving practical prescriptions and, in brief, methods of treatment for the diseases seen especially in every-day practice. Proper inquiries concerning general formulae and outlines of treatment are answered in these columns without allusion to inquirer.]

Diabetes.

A. Robin, according to an abstract in the *Courier of Med.*, recommends in the treatment of diabetes, that grains 15 (1.00) each of antipyrin and sodium bicarbonate be taken one hour before dinner and supper. The amount of sugar excreted daily will, under this treatment, rapidly be reduced to 50 per cent. of its original amount. This treatment should be continued for three days, when it should be replaced by the bihydrochlorid of quinin in ten-grain doses (.60) on rising, which should be repeated for six days, alternating with the following:

℞. Sodii arsenatis ..... gr. 3/4 | 05
Aq. destil. ..... ʒi 30 |

M. Sig.: One teaspoonful before each meal.

Lithia carbonate may also be given in three-grain (.20) doses three times a day before lunch, or sodium citrate in two and a half grain (.15) doses before each meal. Sodium tartrate may be ordered instead of the above salts, in doses of grains six (.40) each.

In cases where nerve sedatives are indicated give the following:

℞. Ext. bellad. ..... gr. 3/40 | 005
Ext. opii ..... gr. 1/6 | 01
Ext. valerianæ ..... gr. iiss | 15

M. Ft. pilula No. i. Sig.: Three to ten such pills daily.

Coryza.

Dr. G. Bjorkman, in *Merck's Archives*, recommends the following combinations in the treatment of coryza in the early stages:

℞. Quin. muriatis
Camphoræ, āā ..... gr. 1/4 | 015
Ext. belladon. rad. flu..... gtt. 1/8 | 008

M. Ft. capsulæ No. i. Sig.: One such capsule every fifteen minutes until relieved; or:

℞. Ext. suprarenalis aq. ..... gr. xv-xlv 1.-3 |
Aq. destil. steril. ..... ʒiiss 10 |

M. Sig.: To be applied to the nasal mucous membranes several times a day with a brush; or:

℞. Menthol ..... gr. xxx 2 |
Spts. chloroformi ..... ʒss 15 |

M. Sig.: Twelve drops to be dropped into the palms of the hands and rubbed until most of the chloroform has evaporated. The hands should then be formed into a mask and the vapors inhaled for five or ten minutes, every half hour; or:

℞. Ext. hamamelidis aq. ..... ʒi 30 |
Sol. acidi borici (1 per cent.) ..... ʒi 30 |

Sig: A small amount added to a teaspoonful of water to be snuffed into the nose repeatedly; or:

℞. Zinci sozoiodol ..... gr. xxx 2 |
Menthol ..... gr. ivss | 25
Sacch. lact. ..... ʒi 30 |

M. Sig.: To be insufflated into each naris several times a day.

The Dose of Codein.

According to Fraenkel, in *Munch. Med. Woch.*, the dose of codein should be larger than the dose ordinarily given in order to obtain the full physiologic effect of that preparation. It is twenty times less powerful than morphin. It should be given in doses ranging from 2/3 gr. (.04) to 3/4 gr. (.05), repeated three or four times a day. The single maximum dose may reach grain 1½ (.09) and the maximum daily dose 4½ grains (.28). In administering it to children the following daily dose may be allowed: Age four years, gr. 1/6 (.01); age six years, gr. 1/3 (.02); age eight years, gr. 2/3 (.04); age twelve years, gr. 1¼ (.075).

Scabies.

The following ointment, which is similar to that formerly employed by Kaposi, is recommended in the treatment of scabies:

℞. Naphthol ..... ʒiv 15 |
Saponis viridis ..... ʒiss 45 |
Pulv. cretæ ..... gr. xl 2 | 65
Adipis ..... ʒviii 240 |

M. Ft. unguentum. Sig.: Apply locally, dust with starch powder and wrap in a linen cloth.

The following combination is recommended by Local Handbook of Ther.:

℞. Naphthol
Sulphuris precip., āā ..... ʒi 30 |
Adipis ..... ʒviii 240 |

M. Sig.: Apply locally after scrubbing the parts well with soap and water.

Constipation.

Gant, in the *N. Y. Med. Jour.*, states that he has discarded drugs entirely in the treatment of constipation, and by employing the following outline of treatment his results are

positive in all cases: Massage is essential in the cure of constipation, attention being directed not only to the large intestines but to the liver, small intestine and rectum. It improves the circulation, loosens any adhesions present and increases peristalsis. Faradism is of great value, applying the positive pole over the spine or within the rectum and moving the negative over the abdomen and liver.

Enematas of warm soapsuds are sometimes necessary to relieve an overloaded colon. The patient is given the following instructions:

1. Go to stool at the same hour each day and make a strong effort to move the bowels, whether successful or not.
2. Correct errors in diet; be regular about the meals and masticate the food thoroughly.
3. Eat sufficient fruit and drink an abundance of water, especially on rising.
4. Take a cold bath every morning, to be followed by thorough friction.
5. Regular indulgence in outdoor exercise and gymnastics, paying special attention to those movements which tend to develop the abdominal muscles.
6. Change from a sedentary to a more active occupation if it is deemed necessary.

Seborrhea.

Seborrhea, according to Shoemaker in *Med. Bul.*, requires constitutional as well as local treatment. If gastrointestinal disturbances are present the bowels must be kept properly active and bitter tonics administered. Iron should be given when anemia or chlorosis is present. Seborrhea is most frequent on the scalp; however, the hair should not be cut short but some bland oil should be applied to remove the crusts. The use of tobacco must be avoided and oatmeal, fish, pastry and fried foods cut from the articles of diet. The patient may eat baked potatoes, eggs, beefsteak, lamb chops, baked or stewed fruits and roast beef once a day. He should eat no supper.

The following should be given internally:

℞.	Podophyllotoxin		
	Ext. belladonnæ		
	Ext. nucis vom., āā	gr. 1/10	006
	Ext. taraxaci	gr. i	06
	Pepsini puri	gr. ss	03

M. Ft. pil. No. i. Sig.: One such pill four times a day.

The following ointment should be applied locally after the crusts have been removed:

℞.	Chloralis hydratis.	gr. xv-xxx	1.-2
	Olei eucalypti	m. v	30
	Magnesii carb.		
	Zinci carb., āā.....	ʒss	2
	Ung. aq. rosæ	ʒi	30

M. Ft. unguentum. Sig.: Apply locally.

According to the author the chloral is soothing, antipruritic, and aids in contracting the follicles.

Sedative in Neurasthenia.

The following combination, recommended by Lewis in *Amer. Med.*, is of service in quieting the nervous symptoms of neurasthenics:

℞.	Potassii bromidi	ʒiv	15
	Tinct. ferri chloridi	ʒiii	12
	Glycerini	ʒii	8
	Aq. q. s. ad.....	ʒiv	120

M. Sig.: One teaspoonful to be taken in half a glass of water and repeated as often as necessary in order to decrease the pains and produce sleep.

Migraine.

In order to lessen the suffering from an acute attack of migraine the first essential, according to the *Med. News*, is absolute rest in a darkened room. Heat should be applied locally to the feet and a mustard poultice to the back of the neck, and the head well wrapped in a shawl. Tea and coffee should be avoided, and if the patient has a tendency to a gouty diathesis colchicum should be given, or if rheumatic the salicylates or aspirin, alternating with sodium bromid. The eyes should be examined and the teeth cared for. If an attack occurs during menstruation a sitz bath should be taken and the following given internally:

℞.	Spts. chloroformi		
	Spts. ammon. arom.		
	Tinct. card. co., āā.....	ʒii	8
	Liq. ammon. acet. q. s. ad.....	ʒiii	90

M. Sig.: Two teaspoonfuls and repeat in two hours if necessary.

Citrophen, according to the author, acts admirably in some of these cases.

When nausea and vomiting are present the following mixture is suggested:

℞.	Tinct. zingiberis	ʒi	4
	Tinct. capsici.....	m. xxxvi	2 40
	Syr. zingiberis	ʒiv	15
	Aq. menth. pip. q. s. ad.....	ʒiii	90

M. Sig.: Two teaspoonfuls and repeat as necessary.

In the gouty form the following is valuable to give relief:

℞.	Antipyrini	ʒi	4
	Sod. salicylatis	ʒiss	6
	Aq. cinnamomi q. s. ad.....	ʒii	60

M. One teaspoonful every hour until relieved.

Or, according to Merck, the following:

℞.	Quin. valerinatis	gr. xv	1
	Ext. colchici		
	Ext. digitalis, āā	gr. iv	25
	Ext. aconiti	gr. ii	12

M. Ft. pil. No. x. Sig.: One at noon and night.

If neuralgic in character the following is recommended:

℞.	Antipyrini		
	Butyl-chloral hydratis, āā.....	ʒii	8
	Syr. zingiberis	ʒii	60
	Aquæ	ʒi	30

M. Sig.: One teaspoonful every two to four hours.

Decubitus.

The following in *Merck's Archives* is recommended by Bjorkman in the treatment of bedsores: The points of pressure should be properly protected by pads and air cushions. Absolute cleanliness is imperative. The sheets should be removed frequently and aired once or twice a day; remnants from meals should never be permitted to remain in the bed. When dejecta come in contact with the patient, the parts should be thoroughly cleansed antiseptically and astringent lotions applied. The following lotion serves well as a preventive measure:

℞.	Aq. hamamel. dest.		
	Spts. vini, āā	ʒiii	90

Sig.: Apply locally.

The author recommends light massage as a stimulant to the sluggish circulation. If sloughing should occur one of the following combinations may be used:

℞.	Nosophen	ʒi	4
	Lanolini	ʒi	30

M. Ft. ung. Sig.: Apply locally; or:

℞.	Potass. sozoiodol	ʒiiss	10
	Lanolini		
	Liq. petrolati, āā.....	ʒiss	45

M. Ft. ung. Sig.: Apply locally.

Medicolegal.

Rules for Weighing Expert Testimony.—The Supreme Court of Nebraska, in Modern Brotherhood of America vs. Cummings, holds not erroneous an instruction in which the jury were told that in weighing expert testimony the same test was to be applied in weighing other testimony, and which continued as follows: "In weighing expert testimony, it is important that you should consider whether the fact on which the opinion of the witness is given has been satisfactorily proven—whether the expert is in any way biased and prejudiced, as shown by the evidence. You should also consider what experience, skill and learning in his profession the expert is shown to have. In weighing expert testimony offered for the purpose of contradicting the testimony of other witnesses who have positively stated facts claimed by them to have been within their personal knowledge, you should not fail to dis-

tinguish between those inferences or conclusions of the expert which are shown to be only probable and generally true, and which have their exceptions, and those other inferences and conclusions, if any, which are necessary and invariable, and which have no exceptions. You should also consider whether the opinion of the expert is speculative, theoretical, and states only the belief of the witness, while yet some different opinion, conclusion or inference may be drawn from the same facts." As to the question of whether the arm of the party by whom the action was brought was broken or not, which was in dispute, the jury were told that it was not for the expert to determine, but was alone for them to determine from all the testimony in the case.

Hastening Death by Inflicting Wound on Diseased Person.—Briefly summed up, the Court of Criminal Appeals of Texas says that the physicians' testimony in Gardner vs. State, a homicide case, showed that the deceased was in the last stages of Bright's disease; his elbow broken by a pistol shot; chloroform administered for the purpose of surgical operation; the kidneys, paralyzed by means of the chloroform, and failing to perform their functions, threw uric acid back on the system by poisoning the blood, thereby causing death. The physicians also testified, in this connection, that this was the proper treatment under the peculiar circumstances, and that the operation was a necessity. Whether the life of the deceased could have been saved by some other means than the operation, or whether there was negligence in this connection or improper treatment in not investigating the condition of the deceased's kidneys prior to the operation, does not seem to have entered into the testimony. The accused, who fired the shot, asked an instruction to the effect that if the deceased was shot, but the wound thereby inflicted was not necessarily fatal, and the wounded party was suffering from or afflicted with a disease not connected with or superinduced by the shot, and died therefrom, then the accused should be acquitted altogether of any grade of homicide. This charge was refused, and the court holds that it was properly so. It holds that if the deceased was suffering from a disease or a wound, and the accused's shot hastened the death of the deceased, he would be guilty of homicide. If the deceased would have shortly died from Bright's disease, and it was an incurable malady, yet if the accused's shot assisted in bringing about the death, he would be guilty of the homicide. An accused can not speculate as to how long his victim may live with an incurable malady when he inflicts a shot or a wound that hastens the death or the action of the fatal disease.

What Physician May Recover When Own Child Injured.—The Court of Civil Appeals of Texas says, in St. Louis Southwestern Railway Company of Texas vs. Gregory, that physical or mental pain suffered by an infant, by reason of personal injury or wrong inflicted by the negligence of another, is not an element of damages which the parent is entitled to recover, but the right to recover damages for such pain is personally of the infant. If, however, the pain which the child suffers is such as to incapacitate him for services to his parent, the latter will be entitled to recover damages, not for the pain, but as compensation for the loss of services caused by the pain to the child. Though an infant be injured, there is no right to recover by the parent therefore, unless the injury be such as to cause loss of services, or require, at the hands of the parent, some expense or outlay that otherwise would not have been made necessary. Medical services, and all necessary expenses of the care and treatment of a child whose injury or sickness is caused by the negligent or wrongful act of another, are elements of damages arising from such negligence. It is not necessary that the parent engage a stranger to administer medical treatment to the child, if the parent himself is a physician competent to perform such medical services. If he performs such services, he is entitled to recover from the wrongdoer a reasonable compensation therefore, for such wrongdoer has made it necessary because of his wrongful act. But the recovery by the parent should not exceed the value of the services performed. He can not recover for the loss of patronage as a practicing physician while detained at home on account of the sickness of either his wife or child. Such damages are too remote. Nor is the anxiety and mental anguish suffered by him and his wife, or either of them, by reason of the child's sickness, proper elements of damages.

Power to Quarantine—Requiring Notice by Physician.—The Supreme Court of Iowa says, in the case of State vs. Kirby, that it is unquestionably true that the preservation of the public health is of paramount importance to the state at large, as well as to local communities, and that the state, in the exercise of its police powers, may confer on the state and local boards of health whatever powers are deemed necessary for the preservation of the general health of a community or of the state. It may, perhaps, be conceded that, even in the absence of express statutory authority so to do, the authorities of a local community would have inherent or implied power to adopt such rules and regulations as were reasonably necessary for the preservation of the public health of such community; but, whenever the state has expressly conferred such power, it must be exercised as provided in the grant. The policy of the law of this, as well as most of the other states, has been to confer great power on those boards; and it may be conceded, so far as the exercise of those powers is concerned, a liberal construction should be given to the rules and regulations adopted by such board. But they must not unreasonably interfere with the liberty, property and business of the citizen. And whether such regulations are reasonable, impartial and consistent with the state policy is a question for the court. While the law seeks the welfare of the greater number, and says that individual liberty and property must yield for the time being thereto, it has prescribed the preliminary steps necessary to deprive the citizen of these constitutional rights, and it is but just and in accord with settled legal principles that the courts require a strict adherence to the statute in matters of this kind. Chapter 59 of the Acts of the Twenty-fourth General Assembly provided that, "upon written notice given by any physician that smallpox . . . exists in any place, it shall be the duty of the mayor . . . to establish quarantine." Section 2568 of the Iowa Code says that "the quarantine authorized . . . in case of infectious or contagious diseases may be declared or terminated by the mayor . . . upon written notice given by any practicing physician of the existence of such disease." The local rules under which the local board of health acted in this case in undertaking to quarantine the party charged with disobeying its order were adopted in 1894, and the court thinks did require a written notice as provided by the statute; but whether this was so or not the statute required it when the rules were adopted, and, what was of more importance, it was required when the attempt was made to quarantine this party. No such written notice, however, had been given by any physician; and the court thinks the board was, for this reason, without authority to restrain the party. It is not necessary for the preservation of the public health, the court says, that the mayor be allowed to shut a person up in his own house, or in a pesthouse, on the mere suggestion of any one who may be unduly alarmed over appearances. Every town now has a competent physician for its health officer, and, in case of his temporary absence or inability to act, other competent physicians may easily be obtained for an examination and the written report required by the statute. The suggestion that this party had consented to this quarantine leads the court to further say this, that he might have waived a formal notice thereof might be conceded, but surely it would not be contended that he could be convicted of a violation of the quarantine statute simply because he had agreed to remain secluded from his fellows for a given length of time. Had he done this, he might be guilty of a breach of contract, but nothing more.

Current Medical Literature.

AMERICAN.

Titles marked with an asterisk (*) are abstracted below.

Philadelphia Medical Journal.

May 23.

1 The Third and Final Report of a Case of Presystolic Mitral Murmur, Complicating Pregnancy, Etc., with Exhibition of Specimen, Showing Triple Valvular Lesion, viz., Mitral Stenosis, Tricuspid Stenosis and Aortic Stenosis. James Tyson.

2 *The Present Treatment of Puerperal Septic Infection. Edward P. Davis.
3 *Decreasing Fecundity: Its Causes and Results. Scott P. Child.
4 Malnutrition. Theodore J. Elterich.
5 *A Fatal Case of Anthracosis, with Autopsy. Thomas S. Githens.
6 The Local Use of Cocain in the Nose. W. G. B. Harland.

2. **Puerperal Septic Infection.**—Davis insists on the importance of prophylaxis, asepsis during obstetric cases, following every possible precaution. Among the methods of treatment which have proven of value he includes thorough cleansing of the uterus and vagina; cauterization of ulcers with carbolic acid and iodin; sponging out the vagina with cotton dipped in a 1 per cent. lysol solution or mercury bichlorid, 1 in 4000, and thorough exploration of the uterus with a blunt-edged curette to bring away necrosed material, but avoiding wounding of the tissue; the use of prolonged irrigations with lysol or creolin, 1 per cent., or normal salt solution at about 100 F. or more. If bleeding is exhausting it is well to pack the uterus moderately with gauze containing 10 per cent. of iodoform. No mercury bichlorid should be introduced within the uterus under any circumstances. The vagina should be lightly tamponed with dry bichlorid gauze left there for forty-eight hours, followed by thorough irrigation of the uterus and vagina with 1 per cent. lysol solution. No further douching should be practiced. Other measures mentioned as of decided value are applications of cold to the abdomen over the uterus with counter-irritation by turpentine stupes, prompt emptying of the intestines, the use of tonics and stimulating drugs, especially strychnia and ergot, liberal feeding, good nursing, the use of normal salt solution, either by the bowel or hypodermically, etc. He objects to hysterectomy in pelvic or abdominal abscess, and thinks it justifiable only where the infected placenta can not be removed. Such cases are of the rarest occurrence. If, on opening the abdomen, the fallopian tubes are found distended with pus, their removal is justifiable. The methods which must at present be considered as experimental are the use of streptococcic serum, the use of nucleids to produce increased leucocytosis, Credé's silver ointment applications, injection of formalin as recently recommended, hysterectomy and the ligating and dissecting out of the infected and thrombosed veins. He believes in hysterectomy during labor in infected cases, and mentions cases where recovery followed Porro's operation. Among the injurious methods he includes drugs to reduce temperature, too much anxiety to stimulate the heart by the use of digitalis, etc., the tendency to check purgation which Nature sets up, and repeated intrauterine manipulations. He advises the poor and those of little means to go to hospitals for confinement, where private rooms at prices available should be provided.

3. **Decreasing Fecundity.**—Child reviews the statistics, accepting apparently the prevalent opinions as to the actual decrease of fecundity of American women, and attributes it to the social customs, prevention of conception and gonorrhea and syphilis, especially the former, which he thinks is an important cause. He also mentions criminal abortion, which he seems to consider frequent.

5. **Anthracosis.**—Githens reports a case in which a diagnosis of tuberculosis was made, but the lungs showed pronounced anthracosis without the presence of any tuberculosis. Chemically, the pigment was about one-fifth of the lungs by weight, and 6.23 per cent. of the pigment was ash. This seemed to indicate that the anthracosis was due to hard coal and that the patient had worked as a miner before taking up his later occupation as barber. The points of interest were the youthfulness of the patient, the history of syphilitic infection five years previously and that the anthracosis was the direct cause of death. He remarks on the paucity of literature of the condition. With the exception of one article by Osler in 1875, he finds no mention of the disease in the United States, and he can learn of no cases from physicians in coal-mining districts.

Medical Record, New York.

May 23.

7 *Some Unusual Cases of Appendicitis. Robert F. Weir.
8 *On a Case of Complete Fibrous Obstruction (Congenital?) of Both Superior and Inferior Venæ Cavæ in a Young Man of Eighteen Years—First Recorded Case. Alfred Meyer.
9 *Total Respiratory Failure from Ether—Artificial Respiration for Over Four Hours; Recovery. H. H. Everett.

7. **Appendicitis.**—Several unusual cases of appendicitis are described by Weir, including one of internal intestinal strangulation from an elongated inflamed appendix with a clubbed termination attached to the side of the lower lumbar vertebræ; one of strangulated hernia with gangrenous appendix; one of tumor of the cecal wall following removal of the appendix; one of very short appendix, one-half inch long, which was productive of several sharp attacks. When it was found its lumen was nearly obliterated and its walls very much thickened and sclerosed. It was at first taken to be merely a remnant of the appendix, but close examination showed it to be complete. There was also a case of appendicitis with general peritonitis operated on, with also repeated venous infusions of normal salt solution and recovery. Weir follows the suggestion of Crile to limit the amount to 1000 or 1250 c.c. and add 10 to 15 minims of a 1-1000 solution of adrenalin chlorid, and also 5 per cent. of sterilized glucose or .03 per cent. sodium saccharate. The results have been excellent. Lastly, he reports a case of cancer of the appendix which was operated on, and the patient has remained well for over three years. He remarks that with the exception of this case and that of the short appendix, all occurred within the last year.

8. **Obstruction of the Venae Cavae.**—In the case reported by Meyer, both the superior and inferior venæ cavæ were obliterated and the entire return venous circulation was provided for by the dilated vena azygos major. He reviews the literature of such cases to a certain extent and holds that the cause of the obstruction here was obscure, with no evidence of specific disease.

9. **Ether Asphyxia.**—In the case reported by Everett the patient was being operated on for appendicitis in which gangrene and adhesions were found. Respiration finally ceased, and for four hours artificial respiration and adrenalin chlorid, strychnia, etc., were employed. The patient made a good recovery, which Everett attributes largely to the adrenalin.

Medical News, New York.

May 23.

10 *Fracture of the Spine: Three Cases. Howard J. Williams.
11 Rheumatic Tonsillitis in Children. John Stewart.
12 *Notes on Blood Pressure in Man. (Continued.) S. S. Goldwater.
13 The Circulation in Puerperal Eclampsia. Douglas H. Stewart.
14 Some Interesting Phenomena of Specific Immune Sera. Arthur P. Hitchens.

10. **Fracture of the Spine.**—Three cases of fracture of the spine, one including gunshot wound, are reported by Williams. He attributes the fatal result in one of his cases of fracture of the lumbar vertebræ to drainage after treatment, and holds that drainage in such a wound is not only useless, but attended with danger. In two of his cases he thinks that he might possibly have succeeded in myelorrhaphy according to the method of Stewart and Harte, but the wound would have had to be lower in the cord. He thinks that hereafter we will operate earlier in cases of spinal fracture and oftener in severer cases, knowing that even if the cord is completely crushed the destroyed zone may be removed and the ends approximated. Keen's rule, that after an accident, if the knee-jerk is absent and remains so, operation is contraindicated, should hold good no longer. Absence of deep reflexes should be the most urgent reason to perform exploration.

12. **Blood Pressure.**—Goldwater, in this portion of his article, discusses the influence of posture, which has the effect of producing a lessening of pressure to an average of 15 mm.; muscular exertion, which causes a rise, and baths, which have little effect on a healthy person, according to his experience, though cold baths decrease the heart's frequency and strengthen its force. A rising blood pressure thus produced should be contraindicated in cases of threatening hemorrhage. Other things which alter the blood pressure are massage and perspiration, the former increasing, the latter reducing. Local pressure alterations produced by aneurism are also noted by arteriosclerosis, which may be accompanied with extremely low as well as extremely high tension, according to the condition of the heart, whether weakened or not, and by nephritis where the

value of the tonometer is most apparent. Often the high tension may be the first indication of renal complications. The effects of the nitrites are also mentioned and observations reported in two cases. The fall seemed to be slight, the patients being dispensary patients and not entirely under control. Better results might be obtained in lowering the tension by these drugs in hospital practice. It can not be maintained that as yet any material result has been achieved by the study of the relations between blood pressure and valvular disease. The tension is high in proportion to the degree of compensation hypertrophy and low in uncompensated lesions. The depression of the blood pressure in mental disorders is remarked on, and also the pressure during fever. One distinct service that he mentions which the blood-pressure apparatus has done is to prove that arterial tension may be exceedingly low during the early stage of high fever, when the pulse is full and bounding; relaxation of the arterial walls is, no doubt, the cause. The suggestion is made whether having in the future better control of the circulatory apparatus during this period might not be of some value. In convalescence the clinician must not be surprised to see abnormalities.

Boston Medical and Surgical Journal.

May 21.

15 *A Study of 534 Operations upon the Gall Bladder and Bile Passages, with Tabulated Report of 547 Operated Cases. William J. Mayo.
16 *The Germicidal Action of Alcohol. Charles Harrington and Harold Walker.
17 Report of Five Cases of Fracture of the Hip in Children. H. M. Chase, Jr.
18 A Glass Urethral Irrigator. David D. Scannell.

15. **Gall-Bladder Operation.**—In 534 operations on 519 patients operated on by Mayo there were 19 deaths, or a mortality of 3.5 per cent.; 510 were for gallstone disease, with a mortality of 3 per cent. In uncomplicated cases there was less than 1 per cent. mortality, but in complicated cases, including stone in the ducts, infections with and without stone, and malignant disease the mortality rose to 5 per cent. This is significant and indicates the importance of early operation. Mayo calls attention to the possibilities of even latent gallstone disease, and remarks that operation in uncomplicated cases is very simple. Cholecystostomy not only effectually cures the condition, but by permanently elevating the fundus brings the cystic duct to the bottom of the cavity and furnishes better drainage for the future. The "ideal" operation for closure of the gall-bladder incision has been successful in cases where slumbering gallstones were accidentally found during operation, but is not suited to cases that have symptoms and infection. He has not found that gallstones recur after treatment. Cholecystectomy, he thinks, will perhaps be the operation of the future, and it can be employed with almost equal safety with cholecystostomy.

16. **The Germicidal Action of Alcohol.**—The results of a series of experiments are reported by Harrington and Walker, who offer the following conclusions:

1. Against dry bacteria, absolute alcohol and ordinary commercial alcohol are wholly devoid of bactericidal power, even with twenty-four hours' direct contact, and other preparations of alcohol containing more than 70 per cent., by volume, are weak in this regard, according to their content of alcohol—the stronger in alcohol, the weaker in action.

2. Against the commoner, non-sporing, pathogenic bacteria in a moist condition, any strength of alcohol above 40 per cent., by volume, is effective within five minutes, and certain preparations within one minute.

3. Alcohol of less than 40 per cent. strength is too slow in action or too uncertain in results against pathogenic bacteria, whether moist or dry.

4. The most effective dilutions of alcohol against the strongly resistant (non-sporing) bacteria, such as the pus organisms, in the dry state, are those containing from 60 to 70 per cent., by volume, which strengths are equally efficient against the same organisms in a moist condition.

5. Unless the bacterial envelope contains a certain amount of moisture, it is impervious to strong alcohol; but dried bacteria, when brought into contact with dilute alcohol containing from 30 to 60 per cent. of water by volume, will absorb the necessary amount of water therefrom very quickly, and then the alcohol itself can reach the cell protoplasm and destroy it.

6. The stronger preparations of alcohol possess no advantage over 60 to 70 per cent. preparations, even when the bacteria are moist; therefore, and since they are inert against dry bacteria, they should not be employed at all as a means of securing an aseptic condition of the skin.

7. Provided the skin bacteria in the deeper parts can be brought into contact with disinfectants, alcohol of 60 to 70 per cent. strength may be depended on usually, but not always, to destroy them within five minutes.

American Medicine, Philadelphia.

May 23.

19 *Congenital Dislocation of the Hip: Report of a Bloodless Reposition, Followed by Death, with an Analysis of Twenty-three Cases in Process of Treatment. (Concluded.) H. Augustus Wilson, J. Torrance Rugh and W. M. L. Coplin.
20 *Acute Leukemia. John B. Nichols.
21 *Retrocecal Appendicitis with Retroperitoneal Pelvic Abscess. A. Ernest Gallant.
22 Fracture of the Ischiopubic Ramus and Rupture of the Bladder; Recovery After Operation. Lindsay Peters.
23 Anomalies of Respiration in High Altitudes. W. A. Briggs.
24 A Rapid Method for Hardening and Embedding Tissues. B. Meade Bolton and D. L. Harris.

19. **Congenital Dislocation of the Hip.**—The article by Wilson, Rugh and Coplin gives the report of the one fatal case of bloodless operation for restoration of congenital hip-joint dislocation. The child was evidently of low vitality and the recent changes in the lungs and kidneys which were found were probably due to the anesthetic. The details of the postmortem are given in full.

20. **Acute Leukemia.**—This article, which is a portion of a paper awarded honorable mention in a prize competition in the District of Columbia, covers the subject of acute leukemia, reporting a case at length in which a peculiar coccus was found in the blood, but which did not appear to be capable of producing leukemia in animal inoculations.

21. **Retrocecal Appendicitis.**—Gallant reports three cases, the only ones in which he has found the abscess located in the pelvis behind the peritoneum. It has usually an acute onset and the abscess is usually readily recognized in its later stage by vaginal or rectal examination.

New York Medical Journal.

May 23.

25 *In the Hemisphere of X-Ray Activity. J. Rudis-Jicinsky.
26 *The Ureteral Pelvis. Byron Robinson.
27 *Eclampsia—Its Prevention and Treatment. Edward A. Ayers.
28 *Atony of the Duodenum Diagnosticated and Corroborated by Operation. Mark I. Knapp.
29 *A Few Differential Diagnoses in Connection with the Exanthemata. William L. Somerset.

25. **The X-ray.**—One of the principal points made by Rudis-Jicinsky seems to be the greater effect of the *x*-rays in their sphere of greatest activity perpendicular to the anode. He illustrates it, showing the shading out of action, as the rays impinge less perpendicularly from the anode plate. He uses a protection of screen, shield, mask and lead box, with diaphragms for precluding the diffuse rays. This gives not only safe protection, but a very good opportunity to treat any lesion directly with the best radiation from the anode focus point, at the correct standard distance, through a speculum, or, if necessary, over the whole area with the lymphatic glands in surrounding infected tissues.

26. **The Ureteral Pelvis.**—Robinson's article is an elaborate anatomic description of the ureteral pelvis with its variations and relations to vessels, nerves, lymphatics, etc.

27. **Eclampsia.**—Ayers insists on the importance of prevention of eclampsia by proper diet and attention to the bowels. Keeping the bowels empty not only sustains the eliminative function, but permits the uterus to occupy the abdominal space with less interference with the work of the kidneys, ureter and heart. He also advises the patient to take a measure once a week of the entire urine passed in twenty-four hours, and having learned the normal amount, to inform the physician when any variation occurs. He holds that the increased abdominal pressure from the growing uterus has much to do with the development of eclampsia, and in all cases investigates this point. If the lower limbs or vulva are edematous or cyanosed he tries to keep the bowels empty and have the patient follow the rule of short periods of time on the feet and long periods of rest on the back and side. As regards the urine, he suggests the rule that whenever the amount excreted or the urea eliminated falls below the normal, or albuminuria or casts appear, treat the patient by diet, laxatives and diuretics to restore the functions to normal. If moderate effort does not succeed, exercise, diet, with active bowel and kidney stimulation, will sometimes cause death of the fetus, excite premature labor, or greatly weaken the mother. These strenuous results may not be called for. If there is headache, eye disturbances, furred tongue, cold, clammy skin and irritable pulse, we should not feel limited in the extent to

which we carry preventive measures. The indications for the induction of labor should be determined by a specialist. He suggests that it might be well to try the administration of thyroid extract when other methods fail. As regards the treatment of eclampsia, we must try to eliminate the toxins promptly and see whether we can do it without interfering with pregnancy. Many cases of eclampsia are the result of a very temporary condition of the emunctories. If, before the conditions have produced much cerebral hyperemia and asphyxiation of the blood, free catharsis can be secured, they may entirely cease and, by proper attention to warnings, a second attack be prevented. If the fetus has not been killed by the convulsions, the pregnancy may go to term. If it has killed the fetus, then labor can be induced in a gentle way after the toxic condition has been removed. Ayers condemns the plan of first attacking the convulsions and immediate emptying of the uterus. He thinks this gives the ideal results less chance to occur. We should not dull the nervous system with narcotics to lessen the response to elimination unless we add immediate delivery and perhaps blood letting. If the mind is clear and the effect of convulsions are marked he would give saline cathartics by the mouth and a high saline solution by the bowel. If the patient is highly nervous, with restlessness, tossing and mental activity, he favors the administration of 20 to 30 grains of chloral per rectum to relieve the nervous tension, not to produce narcosis. Nitroglycerin, 1/50 of a grain, should be given at the start and repeated as needed. If free catharsis is secured and the secretion of urine is not suppressed, and the convulsions lessen in an hour or two, he would not touch the uterus or further administer narcotics, but would use oxygen and hypodermoclysis with saline infusion. If following this treatment the attack ceases, eliminative treatment should be continued with lessening severity for one or two days, the diet being reduced to milk alone. The urine should be examined to see if the kidneys are acting normally. If not, labor should be induced by the bougie. The saline solution, he says, is one of the most valuable agents we have in obstetric work, particularly in hemorrhage, though in eclamptic cases its use requires more care. During convulsions the heart is laboring violently to empty its blood into the aorta and pulmonary artery, but is largely prevented by the respiratory spasm. By directly injecting into the vein at this time the strain is added to. He thinks as many cases in eclampsia die from exhaustion of the heart as from coma. For control of convulsions, when needed, he believes in the use of chloral by rectal injection, but its greatest danger is its effect on the heart. Veratrum viride is of value in cases showing a high tension. He would not be surprised to see it supplanted in the future by thyroid extract, which is a vasomotor depressant as well as a nervous stimulant, and this last action would seem perhaps to contraindicate it in eclampsia. However, he would not advise the use of any particular anticonvulsive as a routine measure, as no disease calls for more special selection than eclampsia. When labor is going to continue whether we check convulsions or not, it is best to hasten delivery. If the mental condition is active, the nervous system irritable, it is best to employ chloroform narcosis and dilate with judicious rapidity. He has had 46 cases of eclampsia with four deaths, and he thinks he has prevented a fatal termination in fully a score of cases. In all he has used nitroglycerin, chloral, chloroform and veratrum viride variously according to indications; dry and moist hot packs; saline infusion and injection; and various methods of cervical dilatation. In conclusion, he emphasizes two things: 1. That we can prevent the great majority of cases by careful application of the knowledge we possess; and 2, that in the treatment of cases each must be a law unto itself.

28. **Atony of the Duodenum.**—Knapp reports a case which he diagnosed as atony of the duodenum as against cancer, which was the other opinion given. There was a resistance at the left of the umbilicus running somewhat downward which he attributed to infiltration due to recurring attacks of pain in the abdomen, spasm and bowel distension. His reason for not diagnosing cancer was the intermittent character of the attacks, as in cancer, when the symptoms begin, they are continuous and not readily relieved by enemas, etc. The outcome of the case is given in the printed reports of the Presbyterian Hospital of New York for January, 1902. Operation revealed induration and thickening of the walls of the jejunum nearly obliterating its lumen, to which Knapp attributes the atony of the duodenum.

29. **Exanthemata.**—Somerset reports cases illustrating the difficulties of diagnosis and the differentiation of various exanthematous conditions. He remarks that the eruption of German measles is essentially macular, and only resembles that of scarlatina by confluence. Ordinarily the resemblance is rather to that of measles, but the crescentic arrangement is absent. It differs further from measles in giving a leucocytosis. With more profuse eruption, the resemblance is rather to scarlatina. Mild scarlatina and German measles may resemble each other very closely, but the strawberry tongue is never present in rötheln. The post-cervical glands are often enlarged, but by no means invariably so; conjunctivitis is exceptional; the temperature, pulse and clinical condition will not match the rash in scarlatinal proportion, and the eruption is apt to be patchy. German measles is more apt to be mistaken for scarlatina than scarlatina for German measles. He also reports a case of variola closely resembling varicella, and remarks that variola may abort and present itself in forms so divergent from the type that it deserves to be called varioloid or some other name, were it not that the contagion is as virulent in this case as in the most severe. The last case he reports is one of either quinin or ptomain poisoning resembling scarlatina.

St. Louis Medical Review.

May 23.

30 *The Healing of Granulating Surfaces by Application of Cobalt-aurate Animal Membrane. Warren B. Outten.

30. **Cobalt-Aurate Animal Membrane.**—Outten recommends for granulating surfaces the application of fine gold-beater's skin soaked in a solution of cobalt chlorid, 1 ounce; gold chlorid, 1 dram, and distilled water, 10 ounces. Over this is poured 2 ounces of pure oil of cassia, which is also a germicide. He finds that the skin thus prepared is an excellent application to granulating surfaces. Before applying it the membrane is put in alcohol and allowed to stay there from three-quarters to one hour, and then in water from 98 to 100 F., to remove the excess of oil and alcohol. A few punctures are made through it after it is dried, and it is then applied to the granulating surfaces, and covered with sterile gauze. Another piece of membrane is applied on top of the gauze and over this a layer of sterilized cotton. No dressing which he has used on granulating surfaces is, according to Outten, equal to this.

Cincinnati Lancet-Clinic.

May 23.

31 *Sciatica. G. L. Bailey.
32 Tuberculosis—Sanitation. H. H. Speers.
33 Surgery of Prostate, Pancreas, Diaphragm and Spleen. (Continued.) B. Merrill Ricketts.

31. **Sciatica.**—The use of the hot-air bath with massage offers, according to Bailey, a simple and reasonably certain means of relief in all cases of sciatica not due to pressure or general disease, and the course of the malady can be materially shortened by the use of this treatment.

American Journal of Insanity, Baltimore.

April.

34 *A Contribution to the Study of the Blood in Manic-Depressive Insanity. Jessie Weston Fisher.
35 The Hallucinatory Delirium of Acute Alcoholism. Charles S. Walker.
36 *The Progress of Psychiatry in 1902—Great Britain. A. R. Urquhart.
37 *Puerperal Insanity. Robert Jones.
38 The Care of the Insane. Charles G. Wagner.
39 *Tent Life for the Insane. O. J. Wilsey.
40 A Graded and Systematized Plan of Outdoor Exercise for the Demented Insane. Chester L. Carlisle.
41 *The Final Chapter in the History of an Extensive Injury to the Head. H. P. Frost.

34. **The Blood in Mania and Melancholia.**—Fischer, who has investigated the blood in the so-called manic-depressive insanity of Kraepelin in the Connecticut Asylum, sums up her results in the following statements:

1. There are no pathognomonic blood changes in cases of maniacal phases of manic-depressive insanity. 2. Anemia is not a caus-

ative factor nor always an accompaniment of this psychosis. 3. The hemoglobin and red cells are frequently, if not always, increased during an attack of excitement. 4. A leucocytosis is an almost constant accompaniment and, I believe, a result of psychomotor activity. 5. That an increase in weight accompanies mental improvement.

36. **Psychiatry in Great Britain.**—Urquhart's contribution points out a number of advances in the practical side of psychiatry in Great Britain and notices also certain scientific studies, especially those of Mott in regard to the repair and decay of the nervous system and syphilis as a cause of insanity. There has also been good work done on phthisis and asylum dysentery, and nursing education has advanced. There has been better effort toward the organization of research and the same movement here manifest toward the treatment of incipient insanity in general hospitals has been in evidence in the British Isles. The legal treatment of insanity has been modified and the recognition of partial insanity demanding partial punishment is a notable fact. The works of Dr. Mercier, his psychology and his text-book on insanity are mentioned as the more important book contributions of the year.

37. **Puerperal Insanity.**—Jones recognizes a distinct form of insanity under this head, presenting marked delirium with wildness and hallucinatory delusions with religious and erotic features, which recognition, however, he admits is not in agreement with some high authorities. This is more particularly the insanity of parturition and the period immediately succeeding it. The insanities of lactation and pregnancy have no distinctive characteristics. In the type recognized, excitement is more common than depression, suicidal and infanticidal tendencies are frequent, heredity is marked in about 50 per cent., and while the disorder is usually considered among the curable types, it not seldom ends in terminal dementia. He considers the pathology of the condition, mentioning the possibilities of reflex processes of the crises of child-birth and also the absorption of toxins taken into the maternal circulation and irritating the nervous system. He favors asylum treatment for these cases, good nutrition, and the usual sanitary treatment of the puerperal condition.

39. **Tent-Life for the Insane.**—Wilsey reports an early experience in the Binghamton State Hospital in 1885, when patients were thus treated for certain periods with good results. The cause, however, was the crowding of the asylum rather than any therapeutic intent.

41. **Extensive Brain Injury.**—The case here reported by Frost was first reported by Rutherford in 1857. The man suffered a serious injury to the brain, destroying a large portion of the frontal and parietal bones, with apparent recovery. He was again reported in 1873, and was then in vigorous health; still again by Gray in 1876 and in 1888 by Bergtold under the title "Remote Effects in a Case of Extensive Injury of the Skull." At this time he was showing some physical and mental symptoms, unsteadiness of gait and some paresis of the facial muscles, atrophy in different parts of the trunk and limbs, and while free from delusions and hallucinations, was irritable and emotional. Thirteen years after this was written, in 1901, the patient was admitted to the Buffalo State Hospital for the Insane in a childish, irritable condition and somewhat demented, with paralysis, exaggerated reflexes, unequal pupils, etc. He died two years after entering the hospital, the cause of death being general debility due to his paralysis. The autopsy showed a large deficiency of bone on the right side extending from the external orbital process in front to the anterior margin of the occipital bone behind, and from the middle line above to within an inch of the external auditory meatus. The scalp and dura over this area were firmly adherent. The entire right hemisphere of the brain was markedly flattened and atrophied, the gyri presenting a shrunken or atrophied appearance with gaping sulci between. Microscopic examination showed a marked defect in the white matter with a much less advanced condition in the cortical gray. The theory is advanced that the direct pressure and loss of the protection of the cranial bones had the effect of interfering with the blood supply to the parts, and as the scar tissue contracted, the late symptoms of brain injury appeared. The article is fully illustrated.

American Gynecology, New York.

April.

42 *A Study of the Degenerations and Complications of Fibroid Tumors of the Uterus from the Standpoint of the Treatment of These Growths. Charles P. Noble.
43 Complete Nephro-ureterectomy. J. Wesley Bovée.
44 *Accidental Perforation of the Uterus. Abram Brothers.
45 *Gonorrheal Puerperal Fever. Fred J. Taussig.
46 Congenital Absence of the Uterus. W. A. Newman Dorland.

42. **Uterine Fibroids.**—Noble discusses the subject and points out the dangers of these growths, holding that one-third of the women having fibroids will die if not subjected to operation, while the mortality of myomectomy and hysterectomy is only 2 to 10 per cent. It is a fair conclusion that resort to early operation will affect a saving of 25 to 30 per cent. from the mortality in addition to a still greater saving in the morbidity.

44. **Accidental Perforation of the Uterus.**—Uterine perforation is a much more common accident, according to Brothers, than generally believed. The majority of cases never see the light of day because of the fear of criminal prosecution. It is rare, he thinks, for the condition to terminate fatally and the small mortality can be reduced to less than 1 per cent. if properly treated. He reports his own personal experience with it and reviews published cases. The proper course, he holds, is that when the uterus is perforated by the sound or curette to stop any manipulation of the interior of the uterus, especially uterine irrigations. If the curetting or sounding was preliminary to an intraperitoneal operation, this may be carried out, and the injury repaired with suture, but if no intraperitoneal operation was originally projected the patient can ordinarily be safely put to bed with an ice-bag over the hypogastrium and given morphin or opiates. If the uterus has been injured and the operator has irrigated the uterine interior, there may be a mild local peritonitis, requiring the same method of treatment as above, or a septic peritonitis may call for immediate hysterectomy with drainage through the vagina, or lastly, there may be a localized abscess in the pelvic connective tissue or pelvic peritoneum which may require to be attacked from above or below. Operation in most of these cases will be of the nature of an exploratory laparotomy, and the exact line of work be determined on when the abdominal cavity is opened. When the uterus has been injured and the intestine has been dragged through the wound and strangulated, laparotomy must be done as early as possible, resection of the intestine be performed if necessary, and the uterus repaired or removed as indicated. Even this condition is not necessarily fatal. Miquel has reported five recoveries in eight operations.

45. **Gonorrheal Puerperal Fever.**—The essential points regarding gonorrheal puerperal fever are stated by Taussig as follows: The gonococcus is the etiologic factor in about one-sixth of all cases of puerperal infection, and though almost invariably secondary to the gonorrheal process elsewhere, must be classified under the head of puerperal fever. The gonococcus may gain access to the uterine cavity without any internal examination being made, but more frequently it is brought about by digital examination and operative manipulations, particularly intrauterine, in delivery, etc. The infection shows itself at the sixth or eighth day postpartum by rigors, a temperature of 103 and severe abdominal pains. The fever is usually of short duration and the further course of the disease is mild, but liable to become chronic. Where the temperature begins to rise as early as the sixth day and continues to rise up to 103 or 104, it is still not necessarily caused by mixed infection, but may be due to the gonococcus alone. The diagnosis is based on the rather late onset, the slow, regular pulse, the moderate and steady elevation of temperature, the profuse purulent, glairy discharge, and, above all, the presence of gonococci in the lochia. Prophylaxis is of more benefit than treatment. All pregnant women having gonorrhea should be delivered without internal examination as far as possible. The treatment should be limited to one or two uterine douches, frequent vaginal irrigations and prolonged rest in bed.

American Journal of Obstetrics, New York.

May.

47 A Method of Determining the Internal Dimensions, Configuration and Inclination of the Female Pelvis. Hugo Ehrenfest.
48 *The Rational Treatment of Puerperal Infection. H. G. Wetherill.
49 Puerperal Hematoma; With Report of a Case and Remarks Concerning It. H. R. Coston.
50 Cystic Bladder Mistaken for an Ovarian Cyst. Enrique Fortun.
51 The Treatment of Gonorrhea of the Uterus. George W. Newton.
52 Septicemia with Uncommon Symptoms. John Van Rensselaer.
53 *Pruritus Vulvæ and Allied Conditions. Edward A. Balloch.
54 *The Reason Why Lactation Can Not Be Prolonged Under Existing Circumstances. Jennie G. Drennan.
55 The Uterine Incision in Cesarean Section. Churchill Carmalt.
56 The Surgical Treatment of Uterine Fibroma. Brooks H. Wells.

48. **Puerperal Infection.**—The treatment here advocated by Wetherill consists in rest in bed, no purges, no food by the mouth, lavage if nausea and vomiting occur, rectal feeding with stimulating and predigested foods in small amounts every four to six hours, and salt solution by the rectum, hypodermoclysis or intravenous injection as required. Once a day a cleansing rectal enema. Strychnia or other stimulants hypodermically. For local treatment he believes in the alcohol method of Carossa, using a special double-current drainage tube, which he illustrates, packing the vagina with gauze and having the nurse instructed to inject into the tube at short intervals from two to four ounces of 50 per cent. alcohol, thus flushing and cleansing the uterine cavity and retarding septic diffusion throughout the lymphatics. He leaves the tube and gauze *in situ* for from three days to two weeks, keeping them free from obstruction by a good piston syringe. The results of this treatment, he claims, are excellent. Regarding surgical measures in puerperal sepsis, he adds that his experience with the various methods teaches him to never operate during the acute stage except as a last resort, and then always with the worst possible prognosis.

53. **Pruritus Vulvae.**—Balloch describes the condition and reports a case which terminated in kraurosis, and was operated on by resection. He believes that the success of excision in kraurosis makes it advisable in simple pruritus after a reasonable trial of the ordinary remedies.

54. **Lactation.**—Drennan holds that normal lactation could be kept up for much longer periods than is customary at the present time if only men and women lived in a natural manner and avoided sexual excitement during the function.

Annals of Otology, Rhinology and Laryngology, St. Louis.

March.

57 *Peritonsillar Abscesses. Frederick C. Cobb.
58 Report of a Case of Large Cerebral Abscess Occurring During the Course of an Acute Suppuration of the Middle Ear; Operation; Recovery. J. F. Barnhill.
59 Pachydermia and Carcinoma, with Remarks on the Development and the Microscopic Diagnosis of Carcinoma. B. Fraenkel.
60 *Laryngeal Paralysis as a Primary Symptom of Tabes Dorsalis; With Report of Cases. Lorenzo B. Lockard.
61 *The Treatment of Recurrent Mastoiditis. Edward B. Dench.
62 *The Treatment of Abscess of the Septum, with Special Reference to the Prevention of Subsequent Deformities. C. G. Coakley.
63 *The Removal of the Stapes for the Relief of Auditory Vertigo. Eugene A. Crockett.
64 *A Brief Consideration of Prognosis in Chronic Suppurative Otitis, Based on the Results of a Year's Treatment of Such Cases. Thomas J. Harris.
65 Otosclerosis or Spongifying of the Capsule of the Labyrinth. George E. Shambaugh.
66 Angioma of Nasal Septum. Irving E. Kimball.
67 The Etiology, Pathology and Symptomatology of Acute Suppuration of the Middle Ear. Edward B. Dench.
68 Complications of Acute Middle-Ear Suppuration. James B. Clemens.
69 The Etiology, Pathology and Symptomatology of Chronic Purulent Otitis Media. M. D. Lederman.
70 Complications of Chronic Suppuration of the Middle Ear. Robert Lewis, Jr.
71 The Treatment of Chronic Suppuration of the Middle Ear. James F. McKernon.
72 The Preferable Route to the Accessory Cavities of the Nose in the Treatment of Chronic and Obstinate Suppurations. L. Picque and J. Toubert.
73 Treatment of Acute Suppuration of the Middle Ear. Wendell C. Phillips.

57. **Peritonsillar Abscess.**—The title of this paper, the author says, should perhaps have been "the location of pus in peritonsillar abscess," as that is the point to which he directs special attention. He finds three locations claimed as possible situations: 1. The pharyngomaxillary fossa; 2, the supratonsillar fossa; 3, the loose connective tissue underneath the mucous membrane surrounding tonsil or fossa. From his discussion of the anatomic conditions he concludes that the real site of the abscess is in the areolar tissue. The practical points of incision are given by him as follows: An upward and backward one, using a straight knife for anterior-superior cases; while for postero-superior an outward incision between posterior pillar and tonsil, with a right-angled knife, is advised.

60. **Laryngeal Paralysis in Tabes.**—Lockard concludes that laryngeal paralysis is present as a complication in about 15 per cent. of all cases of tabes and may precede all other symptoms from six months to three years. It is always limited to the posticus muscle and is usually, if not always, unilateral. It usually remains limited to this muscle for years or during life. This primary paralysis is fairly common, but owing to the lack of subjective symptoms the true percentage can not be ascertained. When the cause of abductor paralysis can not be correctly ascertained tabes should be thought of. It is frequently of great diagnostic importance, drawing attention to the general condition and sometimes reveals an unsuspected ataxia. Wherever the diagnosis of tabes is doubtful, a laryngeal examination should be made, whether or not there be subjective laryngeal symptoms. He reports cases.

61. **Recurrent Mastoiditis.**—Within the last few months Dench has operated on nine cases in which a previous mastoid operation had been performed and persistent sinusitis or recurrent inflammation occurred. In every case the exposure revealed dead bone in the tympanic vault and other anomalies in the walls. It is his practice in these cases to perform the ordinary Stacke-Schwartze operation, and he believes that we should not be content with relieving the immediate acute symptoms by doing a simple mastoid operation in acute mastoiditis. Wherever he finds that the patient has had an aural discharge previous to an acute attack he immediately does the radical operation.

62. **Septal Abscess.**—Coakley employs the Simpson tampon in cases of septal abscess to keep the two layers of the muco-perichondrium in close juxtaposition during healing and at the same time to help bear the weight of the superimposed soft parts until the newly-formed connective tissue is of sufficient density to support them unaided. At the end of a week some form of hollow nasal splint may be substituted for the Simpson tampons to prevent the continuation of mouth breathing.

63. **Auditory Vertigo.**—Crockett advises in the severe form of auditory vertigo, after ordinary treatment has proved futile, the removal of the stapes, and reports cases. His technic is as follows: A flap is made of practically the whole posterior quadrant of the membrane, putting the knife in behind the umbo and carrying it upward close to the posterior edge of the malleus, then across posteriorly and down the posterior superior wall. This flap is then turned downward. The incudostapedial articulation is then cut, if possible, from behind forward. The long process of the incus is then seized with a Sexton forceps and the ossicle removed by traction. The stapedius tendon is then cut and a blunt-pointed hook passed between the crura and the stapes and the stapes removed by traction a little upward and outward. The operation is very painful and generally an anesthetic is advisable. In both cases which he reports total deafness resulted. There was also an increase of tinnitus, which he attributes to hemorrhage in the internal ear, but the ultimate results were good. He advises also always to explain the fact that total deafness may be the result of the operation, though the tinnitus may be ultimately relieved.

64. **Prognosis in Chronic Suppurative Otitis.**—From his study of the subject, Harris offers the following deductions:

1. Chronic otorrhea in a large percentage of cases is amenable to suitable medical treatment. 2. In addition to proper attention of a general character and to the naso-pharynx, peroxid of hydrogen, with or without formalin solution, gives the best results, all minor operative procedures of course first being attended to when necessary. 3. The results of such treatment are in a good number of cases permanent. 4. The risk of an uncured otorrhea with good drainage is relatively very small (1/2 or 2/3 of fatalities). 5. Medical treatment failing, after a suitable interval of time, the danger of fatal complications in absence of all symptoms should be laid before the patient and the promise of relief by operation

stated. 6. Where there is no good reason to the contrary, such as intracranial or mastoid complications, the intratympanic method by ossiculectomy should be preferred, (*a*) because its results as regards the cure are equally good; (*b*) the risk of loss of hearing is vastly less; (*c*) the danger of unpleasant sequelæ, such as facial palsy, is avoided, and (*d*) the possibility of prolonged after-treatment is obviated. 7. The radical operation is not without risk of life. 8. Where ossiculectomy fails or mastoid or other symptoms exist pointing to extension of the disease into the bone, the radical operation then becomes the suitable and valuable method of relief. 9. The protecting and assisting power of nature is never to be lost sight of.

Archives of Ophthalmology, New Rochelle, N. Y.

May.

74 *The Proper Division and Fixation of the Skin Flaps in the Operation for Cicatricial Ectropium to Prevent Re-eversion. F. C. Hotz.
75 Chronic Empyema of the Ethmoidal and Frontal Sinuses, with Exophthalmos; Operation; Death from Meningitis; Autopsy. Arnold Knapp.
76 Y-Shaped Rupture of the Choroid in the Macula Region with Retention of Good Vision. J. J. Mills.
77 A Contribution to the Pathology of Anomalies of the Vessels and the Formation of Stripes in the Retina. Rudolf Schilling.
78 The Antiseptic Tattooing of the Cornea. L. DeWecker.
79 On the Histology of Bullous Keratitis in Glaucomatous Eyes. G. E. de Schweinitz and E. A. Shumway.
80 A Test for Central Color-Perception. Percy Fridenberg.

74. **Cicatricial Ectropium.**—Hotz reports a method of preventing the after-contraction of the lids in the operation for cicatricial ectropium. He avoids traction of the shortened flap on the lid border by dividing the wound area into two sections, one representing the surface of the lid and the other section the wound surface beyond the lid, covering each section with a separate skin flap, anchoring the flap and covering the lid surface so securely that the contraction of the other flap can have no effect on it. In the case of cicatricial ectropium of the upper lid he anchors the lid flap to the tarsus, and in the lower lid to the tarso-orbital fascia. The technic is described in detail.

International Medical Magazine, New York.

May.

81 *Membranous Croup and Diphtheria. J. A. Ellegood.
82 *A Provisional Pathology of Graves' Disease. Edward Blake.
83 *The Physiologic Basis of Manual Therapy and the Rôle of the Vasomotor Mechanism. John P. Arnold.
84 Adrenalin Chlorid in Pulmonary Hemorrhage and Epistaxis. Edward A. Robinson.

81. **Membranous Croup and Diphtheria.**—From a careful consideration of the subject Ellegood concludes that there is no such disease as true membranous croup; that pseudo-membranous inflammation of the mucous membrane of croupous or diphtheritic type, whether or not followed by paralysis, is always caused by the Klebs-Loeffler bacillus in some phase of its existence. This bacillus is a facultative saprophyte. The virulent and the non-virulent types are of the same genus of micro-organisms, and the non-virulent type is the same organism undergoing a kind of saprophytic state of existence which is interpolated in the life history of the parasitic bacillus. The degree of toxicity manifested depends on certain unknown vital conditions of the micro-organism, and on the anatomic character of the part attacked, the degree of immunity possessed and the effect on the germs and its toxins of associated bacilli. Isolated cases of diphtheria, or those which do not give rise to infection, are as frequent as the cases of membranous inflammation of the larynx in which the membrane is confined to that organ without giving rise to infection or to the constitutional symptoms of diphtheria. The failure to find the specific bacillus in a small proportion of cases is due to faulty technic, the late stage in the disease at which the bacteriologic examination was made, unknown morphologic conditions of the micro-organisms, to the development of peculiar or unusual relations to staining reagents, to autolysis, or to the action of other bacteria. Antitoxin when administered early in uncomplicated cases is an almost unfailing remedy, and is useful in all cases. He holds that the occurrence of the bacillus in healthy persons should be carefully investigated, as they are as dangerous as diseased ones.

82. **Exophthalmic Goiter.**—The pathology of Graves' disease offered by Blake is that it is a sort of petrified terror. He thinks there are a number of agencies that can produce this condition, such as staphylotoxin, streptotoxin, intestinal poisons, malarial plasmodium, septic products and probably vitiated respired air, and possibly other causes. He considers the success of iodids and fluorids in this disease as due to their antitoxic and germicidal products. The real aim of treatment should be to attack its cause. He has witnessed cases of the disease which recovered rapidly after removal of colonies of staphylococci and streptococci from the buccal and pelvic cavities.

83. **Manual Therapy.**—The basis of manual therapy, according to Arnold, can be looked for in the vasomotor mechanism. This should be thoroughly understood by the physician.

Therapeutic Gazette, Detroit, Mich.

May 15.

85 *A Preliminary Note on Some Experiments to Determine Whether Alcohol Does Good in Infections by Increasing the Bacteriolytic Power of the Blood. H. A. Hare.
86 Treatment of Conjunctivitis, Corneal Opacities and Syphilitic Iritis. Edward Jackson.
87 *The Preparation of Patients for Anesthesia. John G. Clark.
88 *The Choice of an Anesthetic. Gwilym G. Davis.
89 *The Methods of Administration of Anesthetics. Edward Martin.
90 *Potassium Iodid in Migraine. J. R. Clemens.
91 On the Therapeutic Value of the Nuclein Compounds. James Burnet.

85. **Alcohol.**—This experimental investigation by Hare leads to the conclusion that alcohol seems to have the power of increasing the bacteria-destroying action of the blood in infectious diseases, and while the experiments thus made are too few to determine the question and are also somewhat contradictory, they indicate, so far as they go, that this effect is produced, to some extent at least, by an increase in complement.

87. **Anesthesia.**—The preparation of the patient for the anesthetic is the subject of Clark's paper, which points out the pulmonary conditions contraindicating anesthesia, among the first of which he includes bad colds. The patient suffering from coryza runs the risk of pneumonia, and this is a serious contraindication to anesthesia. A cold is almost invariably made worse by an anesthetic. In chronic bronchitis, however, the anesthetic may even improve matters. The stimulation of the ethereal irritating vapor apparently assists in overcoming the chronic bronchial inflammation. Pulmonary tuberculosis, if localized with sufficient lung space still for respiration, is not, as a rule, rendered worse. Chronic emphysema is always a serious contraindication. In heart troubles the danger is not from profound anesthesia, but rather from the early stages of its administration. The stage of excitement should be avoided as much as possible by giving ether or chloroform very slowly, so that the passage between consciousness and deep anesthesia is very gradual. As a rule, therefore, cardiac lesions are not contraindications, unless there is a serious failure in compensation. Next in importance he insists on careful examination of the urine. Renal insufficiency with a small trace of albumin is much more significant of danger than a considerable amount of albumin with an approximately normal quantity of urine. He has found that ether rarely produces serious kidney lesions if the anesthesia has been in skilled hands. The chief indication, admitting the contraindications mentioned, is to directly evacuate the alimentary tract and to cleanse the blood of the by-products that are to be excreted by the kidneys, so that in the one or two days following the operation the patient's excretory apparatus may undertake unhindered the elimination of the nitrogenous and waste products arising from the ether intoxication and from the increased metabolism incident to any operation or infection. He advises the use of an increased amount of fluids up to two hours before the operation, so as to increase the watery constituents of the blood and dilute the irritant products, and gives calomel in .5 gr. doses every half hour until two grains are taken, followed by an enema three hours before the operation. Bromids, morphin, etc., to prevent nausea have not been satisfactory. The other minor details, such as the removal of false teeth, the abstinence from food for six hours, are well known.

88. **The Choice of an Anesthetic.**—Davis holds that ether is generally to be used unless it is contraindicated, but he has seen fatal results, and emphasizes that it also requires the exercise of care and precaution in its use. He would prefer Willy Meyer's anesthol to chloroform, but ether is less depressing and, therefore, is to be used in preference to either

wherever shock is liable to be a prominent factor. In very old persons the tendency to bronchitis makes chloroform the more desirable, and also in lung troubles and in alcoholics. In certain operations on the brain, mouth or throat, chloroform or anesthol is to be preferred. In genitourinary work he would prefer ether. The preceding administration of nitrous oxid has much to recommend it as rendering anesthesia easier and more satisfactory. Nitrous oxid gas is familiar to every one. Bromid of ethyl is hardly a safe anesthetic, and he does not recommend it. Kelene or ethyl chlorid is considered by Ware of New York as about midway in safety between nitrous oxid and ether. In conclusion he calls attention to the primary anesthesia which can be obtained with ether, and which will be found in many cases for short operations perfectly satisfactory, and yet not have the uncomfortable after-effects of full anesthesia.

89. **Anesthesia.**—Martin would use nitrous oxid for brief operations, ethyl chlorid for fast work to some extent, though its safety is still a matter of question. Ether is the best and safest anesthetic for major surgical procedures. Chloroform can be used in brain surgery and in patients suffering from inflammatory lesions of the air passages. It has been clearly shown that its irritating effect on the kidneys has been greater than that of ether.

90. **Potassium Iodid in Migraine.**—Clemens has been lately prescribing potassium iodid to the exclusion of all other drugs in migraine headache, and the results have been so remarkable that he offers his experience to the profession. The reasons which induced him to give it were the similarity between migraine and cerebral syphilis and the raised arterial tension. He gives 5 to 10 grains of potassium iodid three times daily and finds that after two or three weeks the headache is completely eradicated. He has not met a case that was not absolutely cured. He notes as a significant point in treatment that the headache can be recalled by simply discontinuing the drug for a few days.

Medical Examiner and Practitioner, New York.

May.

92 The Diagnosis and Treatment of Uterine Displacements. William M. Polk.
93 Concerning Wandering Spleen. Heinrich Stern.
94 Various Types of Open or Compound Fractures of the Members. Thomas H. Manley.
95 A Résumé of the Most Potent Factors of Disease and Death in the World's History, with a Review of Modern Prophylaxis. W. H. Irvine.
96 Fallacies of Sugar and Albumin Tests. M. E. Chartier.

Medical Sentinel, Portland, Ore.

May.

97 Report of a Case of Interutero-Placentary Hemorrhage. H. A. Castle.
98 Needle Holders and Needles—A Needle Holder with Normal Curve Jaws; Curved Needles with Round Shaft. R. C. Coffey.
99 Report of a Case of Tubal Pregnancy Treated Through Vagina. T. F. Smith.
100 Foreign Bodies in the Appendix. Ernest Hall.

California State Journal of Medicine, San Francisco.

April-May.

101 Correction of an Imperfect Operation. George B. Somers.
102 Tropical Diseases in California. Wm. W. Kerr.
103 How Far Shall the State Restrict Individual Action of the Sick, Especially the Tuberculous? Norman Bridge.
104 Intra-abdominal Shortening of the Round Ligaments for Retrodisplaced Uteri. J. Henry Barbat.
105 Puerperal Eclampsia. H. M. Pond.

Southern California Practitioner, Los Angeles.

May.

106 The Bible of the Anesthetist. F. D. Bullard.
107 The Importance of Early Diagnosis and Treatment in Diseases and Injuries of the Eye. W. Edward Hibbard.
108 The American Italy. Charles E. Nammack.

New Yorker Medicinische Monatschrift.

March.

109 Ueber Gewebswiderstande bei Carcinomen mit starker Zellproliferation. F. Maass.—Tissue Resistance in Carcinoma, with Excessive Cell-Proliferation.
110 Ueber die Einrichtung von medicinischen Privatbibliotheken. W. Mueller.—On the Arrangement of Private Medical Libraries.

Albany Medical Annals.

May.

111 Recent Studies Regarding the Morphology of the Diphtheria Bacillus. Arthur T. Laird.
112 Chronic Hydrocephalus, with Report of a Case Associated with Gigantism. George G. Lempe.
113 Hip-joint Deformities. Charles E. Davis.
114 Report of a Case of Enlarged Prostate. Douglas C. Moriarta.

Kingston Medical Quarterly.

April.

115 Sawdust and Fish Life. A. P. Knight.

Nashville Journal of Medicine and Surgery.

April.

116 Abortion. G. W. Moody.
117 A Simple Operation for the Cure of Hydrocele. Jas. K. Blackburn.

Medical Summary, Philadelphia.

May.

118 A Young Surgical Case. Frank R. Brunner.
119 Remarks About Tonics. W. R. D. Blackwood.
120 Membranous Croup. M. G. Price.
121 Typhoid Fever. A. J. Shore.
122 The Treatment of Nervous Insomnia. S. Warren Reichard.
123 One Way of Treating Peritonitis. Wm. H. Vail.
124 Physician and Patient. C. E. Boynton.
125 Physiologic Metaphors. J. L. Wolfe.
126 Selection of Food According to the Purposes to Be Accomplished. J. J. Caldwell.
127 Appendicitis. L. A. Kelly.

Vermont Medical Monthly, Burlington.

April 25.

128 Artificial Infant Feeding. Godfrey R. Pisek.
129 The Relative Importance of Heredity, Susceptibility and Contagion in the Development of Tuberculosis. Charles S. Caverly.
130 The Logic of the Open Air Treatment of Tuberculosis. C. W. Peck.

Proceedings of the Philadelphia County Medical Society, Philadelphia.

April 30.

131 *The Surgical Treatment of Pruritus Vulvæ, with the Report of a Case Cured by Resection of the Genitocrural Ilioinguinal, Inferior Pudendal and Superficial Perineal Nerves. Barton C. Hirst.
132 Sudden Death. William S. Wadsworth.
133 Some Biological Differences between the Natural and the Artificial Feeding of Infants. David L. Edsall.
134 Milk as a Carrier of Infection. Samuel M. Hamill.

131. This article appeared elsewhere. See THE JOURNAL of May 30, ¶18, p. 1535.

Alabama Medical Journal, Birmingham.

May.

135 Annual Message of the President of the Medical Association of the State of Alabama. Glenn Andrews.
136 Monitor's Address. C. H. Franklin.
137 Report of the Senior Vice-President. M. B. Cameron.
138 The Operative Relief for Albuminuria. George S. Brown.

Medical Herald, St. Joseph, Mo.

May.

139 Eye Troubles in General Practice. George Park.
140 Hydrocephalus, or Tumor of the Brain. W. R. Brock.
141 The Need of National Leprosaria. A. L. Belt.
142 The Psychological Factor in Medicine and Its Application to Nervous Diseases. John Punton.
143 Report of Cases: 1, Sarcoma of the Pelvic Fascia; 2, Malignant Tumors of the Fundus of the Uterus Associated with Myoma; 3, Three Cases of Ileus. O. Beverly Campbell.

FOREIGN.

Titles marked with an asterisk (*) are abstracted below. Clinical lectures, single case reports and trials of new drugs and artificial foods are omitted unless of exceptional general interest.

British Medical Journal, London.

May 16.

1 *On the Physiologic Action of the Kenyah Dart Poison and Its Active Principle Antiarin. C. G. Seligmann.
2 *Drug Eruptions. George Pernet.
3 Datura Poisoning in the Federated Malay States. John D. Gimlette.
4 *Experimental Hemoglobinuria in a Case of Black Water Fever. Patrick Manson. Reported by W. G. Ross and Geo. C. Low.
5 Hodgkin's Disease and Arsenical Poisoning. Walter Broadbent.
6 Case of Severe Belladonna Poisoning. George R. Livingstone.
7 Case of Chlorodyne Poisoning, with Recovery. K. R. Dalal.
8 Case of Acute Alcoholic Poisoning in a Child Aged 4 Years; Treatment by Saline Injection; Recovery. Frederick C. Forster.
9 Cases of Angioma of Synovial Membranes and of Muscle. Frederick Eve.

1. **Antiarin.**—Seligman has investigated the action and active principle of the Kenyah dart poisoning of Borneo and its active principle, antiarin, and finds that it acts on the ventricle of the heart as a poison of the digitalis group. This has been noted by all previous observers. It also causes paralysis of the central nervous system and temporary chronic spasm of the

voluntary muscles. In mammals or birds the gastro-intestinal symptoms are usually added to the above effects, though certain birds, however, are comparatively immune. His preparation of antiarin, a crystalline glucoside, lacked the convulsive effect of the crude substance, Kiliani's antiarin investigated by Hedbom, though as a cardiac toxin it was fully as active.

2. **Drug Eruptions.**—The drug eruptions noted by Pernet are erythematous, urticarial, papular and desquamating rashes produced by belladonna, arsenic, iodoform, copaiba, quinin and salicin, digitalis, etc. Borax has been said to cause psoriasis. He questions this statement, but admits that it is possible. Chloral hydrate deserves special notice. The eruptions produced are usually erythematous in type. He also mentions the erythema following chloroform and ether and the antitoxin rashes. The diagnosis is noted at length. Erythema multiforme, he remarks, has been closely imitated by drug rashes. In the arsenic beer poisoning epidemic in England recently, many of the cases closely resembled this type. When psoriasis, lichen planus or syphilides are simulated the duration of the corroborative symptoms should be taken into account. Headache, for example, would suggest antipyrin. If copaiba is suspected, a gonorrheal discharge will be of assistance. In localized dermatitis he suggests our looking out for the pediculus pubis and the application of mercurial ointment. The vesicular and bullous lesions are at times mixed up with erythematous and papular ones, indicating severer action of the drug. Salipyrin has produced something in this line. The author remarks that bullous eruptions are greatly aggravated by potassium iodid given internally. Arsenic may give rise to zoster. The iodid of potassium eruptions are more commonly pustular, but vesicles and bullæ are sometimes seen. Of the pustular eruptions those of bromid and iodid origin are the more notable, but arsenic, salicylic acid, etc., have occasionally produced them. The distinctive characteristics of the bromid and iodid rashes are noted. Furuncular complications sometimes occur from the use of these drugs, and gangrene has been produced by arsenic, quinin and also after orthoform locally applied. (The author does not mention the carbolic acid gangrene in this connection.) Pigmentation is a matter of interest and importance and has lately been prominently brought before the medical profession by the Manchester arsenical epidemic. The argyria produced by the nitrate of silver formerly used for epilepsy is a notable instance of this type. Keratosis or hyperkeratosis is seen in arsenical poisoning. Tumor-like lesions may occur in bromic or iodid eruptions. The condition of the nails and hair should be noted in connection with arsenical and quinin intoxication. He suggests as regards etiology that the gastrointestinal condition may be of importance. The nervous system can not be neglected, though its influence has been overrated. There is a great difference in individuals, though raising the question of idiosyncrasy, he says, "burkes the question of causation." In the treatment the first thing to do is to stop the offending remedy. A certain amount of diarrhea in these cases should not be interfered with. It is important not to push drugs which, instead of ameliorating morbid skin conditions, do exactly the contrary. In bromid eruptions arsenic is of assistance. The prognosis is favorable as a rule, though hopeless in the nitrate of silver cases. These, however, are rare nowadays.

4. **Experimental Hemoglobinuria.**—Manson reports the case of a young man who believed that the administration of quinin produced blackwater fever, and was perfectly willing to have the effect demonstrated. The observation was made and a mild case of blackwater fever produced. The case is one more proof that in some individuals, under certain unknown conditions, quinin produces hemoglobinuria.

The Lancet, London.

May 16.

10 Combined Congenital Defects and Organic Disease of the Heart. Thomas Oliver.
11 *The Uses of Paraffin in Plastic Surgery. Stephen Paget.
12 Abdominal Hysterectomy for Myoma by Doyen's Procedures. Walter G. Spencer.
13 A Case of Acute Bullous Eruption Affecting a Butcher. Arthur S. Morley and G. H. Ransome.
14 *A Case of Bullet Wound of the Brain, with Partial Motor Paresis and Hemianopsia. N. Bishop Harman and A. A. Bradburne.
15 Case of a Man Blind from Congenital Cataract Who Acquired Sight After an Operation When He Was 30 Years of Age. A. Maitland Ramsay.
16 Some Observations on the Blood Gases in Diabetes. A. P. Beddard, M. S. Pembrey and E. I. Spriggs.
17 Surgical Emergencies in General Practice. George A. Clarkson.
18 Cessation of Respiration During Anesthesia; Recovery After One and a Quarter Hours. David Lamb.
19 *Note upon the Use of Pilocarpin in the Treatment of Pneumonia. E. Curtin.

11. **Paraffin Prothesis.**—Paget first reviews the history of this method, giving full credit to Gersuny as its originator, and describes the technic, preferring the heating point for paraffin between 108 and 115 degrees F. in ordinary cases, but where it has to stand heavy and immediate pressure the higher heating point is desirable. All paraffin shrinks, but this is slight and may be practically ignored. He has done 43 cases of nose remodeling without accident, with no death, no embolism, no sloughing of the skin and no wandering of paraffin into the eyelids. The results were permanent in some cases, improvement in some is only partial, others fairly good, and in still others but slight. Some cases that seem hopeless do very well, and others that look easy are found difficult. While the chief causes of shrunken noses are injury, inherited and acquired syphilis, there is a set of cases where it is due to abscess in the nose in childhood and others where there is no history at all. The skin in these cases must be loose and not cicatricial. That is the most important thing in results. If it is fairly loose, soft and healthy, and it can be picked up between the finger and thumb, one can be sure of doing good, but there is danger of failure and disappointment if it is tight and hidebound or cicatrized and fastened by adhesions. He mentions in conclusion the use of paraffin for the holding up of the prolapsed bowel or uterus. He would not advise it in uterine cases if the pessary will make the patient comfortable, for there is a slight risk of embolism. The general procedure is much the same in both, only that in the uterus the prolapse may need a large quantity of paraffin and care should be taken to avoid the bladder or rectum. The bulk of the paraffin should be put under the mucous membrane of the posterior vaginal wall and at the sides of the vagina. In the cases he operated on for this purpose his success astonished him. It should not be used, however, in cases during the child-bearing period, as it prevents this function.

14. **Brain Injury.**—Harman and Bradburne report the case of a man shot through the head in the Boer war, giving diagrams showing the exact course of the bullet, which passed from the anterior portion of the parietal down to near the external occipital protuberance, the wound being clean both in entrance and exit. The patient had a transient motor paresis and hemianopsia. The former was nearly recovered from while the latter seemed to be permanent. One point of importance is specially mentioned, the rim of blindness found along the left side of the left field, indicating the existence of a defect in the area held to be supplied by nerve fibers connected with the right uninjured hemisphere. This can be accounted for either according to the Charcot hypothesis of a double decussation of the optic nerve and its connections, one at the chiasma and another in the hemisphere, or the supposition of an injury also to the right hemisphere. The latter is the theory that is favored. The general conclusion from the case is that the central area of the visual field has its cortical connection toward the apex of the cuneus, and supports the view that the perceptive center for vision is situated in the occipital and cuneate regions rather than in the more anterior angular gyrus. The case gives no information as regards the psychic visual center.

19. **Pilocarpin in Pneumonia.**—Several cases are reported in which pilocarpin injected in doses of 1/10 of a grain hypodermically caused almost immediate arrest of the unpleasant symptoms of pneumonia, also diminished pleuritic pain, etc. From his limited experience Curtin concludes that pilocarpin will have a leading place in the treatment of pneumonia, relieving the pain and breathing and sometimes also hastening resolution by exciting glandular secretion. Its administration in most cases is followed by an immediate rise of temperature of ½ to 1½ degrees. One-tenth of a grain dose hypoderm-

ically does not cause profuse perspiration, and but rarely fails to reduce the temperature within an hour or two. It also cleans the tongue and stimulates the flow of saliva. He has not noticed its repeated administration attended by any undesirable results. As a precaution he emphasizes the importance of keeping the patient warm, especially the feet.

Australasian Medical Gazette, Sydney.

April 20.

20 The Physiology of Voluntary Movements. George E. Rennie.
21 The Causes and Prevention of Death from Chloroform. W. B. Vance.
22 Ether Anesthesia in Children. R. B. Wade.
23 Post-Operative Suppression of Urine. William S. Byrne.
24 A Simplified Method of Accurately Estimating Degrees of Leucocytosis. F. Guy Griffiths.
25 A Case of Crossed Hemiplegia and Convulsions in an Infant Six Weeks Old. H. G. Holmes.

Journal of Tropical Medicine, London.

May 1.

26 Tropical Hygiene. W. J. Simpson.
27 *Experimental Hemoglobinuria in a Case of Blackwater Fever. W. G. Ross and George C. Low.
28 Filaria Loa. A. T. Ozzard.
29 Notes on a Case of Ulcerating Granuloma of the Pudenda. W. Renner.
30 Treatment of Beri-beri with Arsenic at the District Hospital, Kuala Lumpur, Selangor. A. J. McClosky.

27. See Paragraph 4 above. The authors here suggest that the antecedents of the case seem to indicate that the hemoglobinuric idiosyncrasy may have been due to neglect of the use of quinin in the earlier stages of what may be a special form of malarial infection, and consequent development of an intense and peculiar cachexia.

Annales Pasteur, Paris.

Last indexed page 408.

31 (XVII, 1.) Nouvelles recherches sur l'arsenic de l'organisme. G. Bertrand.
32 New Lactose Yeasts. P. Mazé.—Qelques nouvelles races de levures de lactose.
33 Influence de la configuration stéréochimique des glucosides sur l'activité des diastases hydrolitiques. H. Pottevin.
34 Etudes sur l'hemolyse. H. Landau.
35 Antimalaria Campaign in Algiers. E. Sergent.
36 Méthode d'hydrolyse des protoplasmides. A. Etard.
37 (No. 2.) Epithélioses infectieuses et epithéliomes. A. Borrel.
38 Encouraging Report of Serum Treatment of Sheep Pox. Ibid.—Etude exp. de la clavelée. Filtration du virus; seroclavelization; serothéraple.
39 *De la fixation de la toxine tétanique par le cérébrum. Besredka.
40 Recherches sur les "propriétés antitétaniques" des centres nerveux. de l'animal immunisé. K. Dmitrievsky.
41 (No. 3.) Sur le mode d'action des antitoxines sur les toxines. J. Bordet.
42 Sur les hemolysines cellulaires. C. Levaditi.
43 Sur la flore microbienne thermophile du canal intestinale de l'homme. Tsikiinsky.
44 Study of South American Horse Disease. Elmassian.—Sur le mal de caderas.
45 Le Bacillus subtilis comme cause de la panophthalmie chez l'homme. W. Silberschmidt (Zurich).
46 Sur un nouveau streptothrix—St. polychromagène. H. Vallée (Alfort).
47 Rabies Virus in Local Lesion in Child. D. Pace (Naples).—Sur l'existence du virus rabique dans le siège de la morsure d'un enfant mort de la rage.
48 Le rabies dans l'Afrique du Sud. A. Loir.
49 Colorabilité des bacilles de Koch dans les sputa incorporés à diverses substances. J. Sabrazès (Bordeaux).

39. **Fixation of Tetanus Toxin by Brain Substance.**—Even after the brain substance was thoroughly saturated with the tetanus toxin in Besredka's experiments, it completely recuperated and regained its primary integrity on addition of antitoxin. The tetanus toxin, therefore, does not form a stable combination with the brain substance, as it can be thus readily dislodged.

L'Obstetrique, Paris.

Last indexed xxxix, page 1011.

50 (VII, 6.) *Fate of Prematurely Born Infants. C. Maygrier.—Deux statistiques hospitalières de prématurés (Lariboisière 1895-98, and Charité 1898-1901.)
51 *Lactation During Pathologic Conditions. P. Budin and M. Perret.—De l'allaitement pendant les suites de couches pathologiques.
52 Des paralysies faciales spontanés du nouveau-né. O. Macé.
53 (VIII, 1.) La mortalité infantile de zéro à 1 an. P. Budin.
54 Infection puerpérale et hystérectomies. O. Macé. Critical review.
55 (No. 2.) Des assurances sur décès des enfants. P. Budin. See abstract, p. 1110.
56 Rapport sur l'unification de la nomenclature obstétricale. P. Bar.
57 Measurements of Fetal Head. Vallois.—Note sur les diamètres de la tête fetale à terme.

50. **Fate of Prematurely-Born Infants.**—Maygrier has found that 45 out of 48 infants born soon after the sixth month and weighing less than 2.500 gm., followed to date are alive and well. The mortality was 19.4 per cent. out of 597 such births at Lariboisière Hospital and 10.12 per cent. in 316 at the Charité.

51. **Lactation During Disease.**—Budin describes 19 cases of grippe, uterine, puerperal or other infection occurring in women nursing new-born infants. The breasts were washed with a weak solution of sublimate and then with boiled water before the child was nursed, and he was kept entirely away from the mother during the intervals between nursing. No unfavorable results were noted in any instance.

Revue de Gynecologie, Paris.

Last indexed page 408.

58 (VII, 1.) *Sur l'utilisation de la leucocytose dans le diagnostique de certaines affections génitales de la femme. L. Bérard and A. Descos (Lyons).
59 *Phimosis du cervix par cloisonnement transversal incomplet de l'extrémité supérieur du vagin. Dysmenorrhée mécanique d'origine vaginale. C. Viannay (Lyons).
60 *Intravesical Segregation of Urine from Each Ureter. G. Luys.—De la méthode de séparation de l'urine des deux reins dans la vessie.
61 *Ibid. F. Cathelin and F. Legueu.—Resultats cliniques de la séparation endovésicale des urines avec le diviseur gradué.
62 (No. 2.) *Condition of Adnexa in Case of Uterine Fibromata. C. Daniel.—De l'état des annexes dans les fibromes utérins. (Commenced in No. 1.)
63 Etude clinique et anatomo-pathologique de la cholecystite calculeuse. V. Cornil and E. Schwartz.
64 *Enterectomie aseptique. Enterorrhaphie circulaire rapide par la suture; instrumentation et technique opératoire. E. Vidal (Périgueux).

58. **Diagnostic Value of Leucocyte Count.**—The findings were so constant in 25 cases of gynecologic affections in which the blood count was carefully studied that Bérard and Descos affirm with great positiveness that it is possible to determine by the leucocyte count whether or not there is suppuration and whether the germs are virulent or not. In affections in the female genital sphere when the leucocytes number 12,000 to 13,000 or more, with decided increase in the polynuclear cells—80 to 85 per hundred—some suppurative lesion exists or is forming, as, for instance, an infected hematocele. The pus is virulent. Intervention should be postponed if possible. If operation is necessary it should be by the vaginal route, and strenuous efforts made to prevent sowing the germs on the peritoneum. When the leucocytes number 10,000 or under, either there is no pus or it is scarcely at all virulent, and operation can be undertaken with the peritoneum walled off from the field with tampons and sponges. In case of profound infection, the leucocytosis indicates the moment for surgical intervention. While awaiting it the general condition should be improved, by injections of serum, fixation abscesses, etc., until the acute phase is past and the leucocyte count shows that the virulence is becoming attenuated. This is especially necessary in case of streptococcus infection. If the leucocyte count drops from 25,000 to 12,000 or thereabouts, the germs have lost their virulence or else the reaction on the part of the organism is so decided that the surgeon can operate without fear. Of course when there are other clinical symptoms of severe infection and the leucocyte count remains constantly low, the prognosis is grave as this signifies that the cellular defenses are unable to cope with the virulence of the infection.

59. **Vaginal Mechanical Dysmenorrhea.**—Menstruation proceeded normally for two years in the case described, but after an attack of scarlet fever it was always painful. Examination disclosed a stricture in the vagina just below the cervix, nearly obliterating its lumen.

60 and 61. **Segregation of Urine in Bladder.**—Luys' instrument has been used in 85 cases and Cathelin's in 83. Both give satisfactory results according to the writers, and are described in detail with 10 and 11 cuts and a colored plate.

62. **Condition of Adnexa in Case of Uterine Fibromata.**—Daniel concludes from anatomic study of 205 cases and analysis of 136 published, that the tubo-ovarian apparatus is pathologic in fully 59 per cent. of all cases of uterine fibromata, if not macroscopically, at least microscopically and histologically. There are evidences of inflammation in about half this number,

but in the others the influence of the fibroma is manifested in circulatory disturbances secondary to the action of the pelvic varicocele or to mechanical irritation of the peritoneum by the tumor or in the general influence of the neoplastic diathesis. Neoplastic affections in the uterus are, therefore, reflected in the adnexa as well as the inflammatory. In some cases the symptoms from the annexes are the first to suggest the tumor formation.

64. **Aseptic Enterectomy and Suture.**—Vidal thinks that he has solved the problem of opening the intestine late in the operation, with solid union of the two serous surfaces during the suture, and a firm support for the suture which does not have to be left in the intestine. After clamping and ligating, he resects the intestine and brings the two ligated stumps together. He inserts in each stump, close to the end, an instrument he has devised which folds together flat until it looks something like an ordinary buttonhook. The curved end is worked through a small buttonhole in the intestine close to the ligated stump. The instrument is then opened and the two half circles form a solid ring, which is pressed against the ligated end, stretching the lumen. A second, similar instrument is introduced into the other stump to correspond. The two stumps are thus stretched as if on hoops, and by pressing these two hoops together, the stumps are approximated and can be conveniently sutured. The ligature is tied in a special knot, which is untied by pulling on the end projecting through the buttonhole. Each hoop is then folded again into the flat semicircle and removed through the buttonhole, which is sutured. The loose end of the previously ligated stump spreads out into a narrow curtain inside the intestine after the ligature is removed. These curtains slough off but serve at first to protect the suture. The article is profusely illustrated.

Archiv f. d. gesamt. Physiologie (Pflueger's), Bonn.

Last indexed page 409.

65 (93, 7-8.) Electro-physiologic Notes. O. Langendorff.—Elekt.-phys. Mitteilungen.
66 Nourishment of Heart with Diluted Blood. Ibid.—Ueber den angeblichen Unfähigkeit des lackfarbenen Blutes den Herzmuskel zu ernähren.
67 *Alcohol as Protection Against Toxic Albuminoids. W. N. Clemm (Darmstadt).—Weingeist als Schutzmittel gegen giftige Eiweisskörper.
68 Zur Physiologie des Tetanus. I. Ueber die Muskeltöne bei elektrische Tetanisirung des ausgeschaltenen Frosch-Gastrocnemius. W. Brünings.
69 Embryologic Study of Bird's Egg. F. Tangl.—Zur Energetik der Ontogenese. I. Die Entwicklungsarbeit im Vogelei.
70 (9-10.) New Apparatus for Blood Count. W. Brünings (Zurich).—Neuer App. f. Blutkörperchenzählung.
71 Psychologie und Medicin. E. Storch (Breslau).
72 Alkohol und Muskel-Kraft. L. Schyder (Berne).
73 (11-12.) Zur Physiologie des Labyrinthes. VII. Die Erzeugung von Schallbildern in die Camera acustica. J. R. Ewald (Strasburg).
74 Experimental Photography of Fundus of Eye. W. Nikoloew (Kazan).
75 Albumin in Organic Fluids. J. Joachim.—Eiweissvertheilung in menschlichen und thierischen Körperflüssigkeiten.
76 Nochmals über Protoplasma und Enzym. T. Bokorny (Munich).
77 Nerves in Ringer's Solution. H. Rietschel.—Berichtigung, etc.—"Ueber verminderte Leitungsgeschwindigkeit des in R.'schen Lösung überlebenden Nerven.

67. **Alcohol as Protection in Disease.**—Clemm reviews a number of established facts showing the efficacy of large doses of alcohol in preventing injury from snake bites, etc., and the strange absence of alcoholic intoxication in these circumstances. He quotes Nothnagel's advice to treat incipient grippe with brandy. Runge has also advised large amounts of alcoholic drinks in puerperal fever. Brehmer advocated alcohol in febrile tuberculosis and Mircoli has recently argued in favor of its "sero-antitoxicity," and commended it as a valuable adjuvant in treatment of tuberculosis as mentioned in these columns. The efficacy of alcohol in these varied conditions may be explained by several hypotheses. It may precipitate the toxic substances in the blood and render them harmless, or it may influence the nerve centers until they cease to feel the influence of the toxins, or the molecular structure of the latter may be altered and the toxicity thus diminished. There is also a possibility that the osmotic tension may be altered by the alcohol and greater bactericidal power conferred on the more concentrated blood. In febrile affections, therefore, the value of alcohol is not so much to whip up the heart as to keep toxins away from the heart. The use of large doses of alcohol is apparently justified in diseases in which the pathogenic germs generate a toxic albuminoid. Study of the composition of the bacterial toxins generated in various diseases may suggest other valuable hints for treatment.

Berliner klin. Wochenschrift.

78 (No. 17.) Disturbances in Awaking. H. Pfister.—Ueber Störungen des Erwachens.
79 Das Verhalten des antitryptischen Vermögens des Blutserums bei der croupösen Pneumonie. M. Ascoli and C. Bezzola (Pavia).
80 *Ueber acute transitorische Aphasie. M. Rothmann. (Commenced in No. 16.)
81 (No. 18.) Elimination of Glycuronic Acid. M. Blal and F. O. Huber.—Zur Frage der Glucuronsäureausscheidung.
82 Peritonitis tuberculosa traumatica mit Ileus. R. Lucke. One case.
83 *Ueber Struma puerperalis. Malade (Treptow).
84 *Ueber die Polymyositis. H. Oppenheim (Berlin). (Commenced in No. 17.)
85 Die Prophylaxie in der Psychiatrie. A. Cramer (Göttingen).

80. **Transient Aphasia.**—Rothmann describes 3 cases of acute transient aphasia which emphasize the varieties of causes that may induce it. In one case the total aphasia appeared with an apoplectic attack. The subject had been exposed to the summer sun at noon, but as the disturbances did not occur until several hours later they were probably due to toxic substances evolved in the interim. There was total unconsciousness at first, the right hemisphere then rapidly recuperated and all symptoms vanished except the aphasia, which lasted for an hour. The second patient was a young physician who has since become a noted pioneer in the study of the brain. The factors in his case were overstudy, exposure to the sun, a fall from a horse and an unusually hearty meal. Pure motor aphasia was followed by agraphia and paraphasia, with complete recovery in less than an hour. In the third case total motor aphasia with right hemiplegia developed suddenly during convalescence from pneumonia and vanished completely in less than half an hour. The next day the aphasia returned with almost total right hemiplegia, both persisting for months. The capacity to sing was retained and nearly normal speech was regained in time by means of exercises conducted in singing tones. The heart was apparently intact in this case and the trouble was evidently due to embolism in the left hemisphere. The thrombosis probably originated in the pulmonary veins. This experience suggests caution in assuming that transient aphasia is of merely functional nature. It may be the result of toxic action from substances generated by external influences, emotions, traumatisms, overexertion, etc., as well as from embolism.

83. **Puerperal Struma.**—Malade has witnessed three cases in which the thyroid gland swelled in multiparæ during parturition. In one instance it was the direct or indirect cause of fatal anemia of the brain.

84. **Polymyositis.**—Oppenheim's five cases of polymyositis demonstrate that the mucosæ are affected as an essential feature of the affection. The mucosæ of cheek, tongue, palate, and conjunctiva are liable to be involved. The redness, swelling, pain, difficulty in swallowing and hoarseness were supplemented in some of the cases by multiple small ulcerations on the mucosæ. In one instance submucous hemorrhages left an Addisonian pigmentation. In another there was double iritis as well as conjunctivitis. He urges study of this form by ophthalmologists who may encounter abortive forms. Oppenheim proposes the name dermatomucomyositis for this affection and calls attention to a possible connection with syringomyelia. In one case the affection in a boy of 8 gradually assumed more the aspect of syringomyelia, and now, four years later, the clinical picture resembles more the latter. Others have reported very discouraging results from treatment, but energetic diaphoresis has accomplished wonders in his hands. He first applies hot air and then wraps in blankets, giving hot drinks and aspirin. The patient is thus sweated for an hour every second day at least, alternating with thermomassage and later simple massage, gymnastics and electricity. Improvement was soon marked under this régime, and complete recovery followed, although the last traces of the affection did not vanish in 2 cases until after a winter in the south.

Centralblatt f. Innere Med., Leipsic.

86 (No. 9.) *Seasickness. C. Binz (Bonn.)—Ueber die Seekrankheit.
87 (No. 10.) Ueber die spinale Metamerie in Bezug auf die Lokalisation der Amyotrophien. A. Bauer.
88 (No. 11.) *Cryoscopy in Liver Affections. L. Ferrannini.—Die Kryoskopie des Urins und Ascites bei Erkrankungen der Leber.
89 (No. 12.) Nature of Circulatory Disturbances in Collapse in Acute Infectious Diseases. K. v. Stejskal (Vienna).—Unt. über die Natur der Kreislaufsstörungen im Kollaps bei acut. Inf.krankheiten.
90 (No. 13.) Study of Urobilin in Human Stomach. A. Meinel.—Ueber das Vorkommen und die Bildung von Urobilin im menschlichen Magen.
91 (No. 14.) Stagnation Hemorrhage During Epileptic Seizure. Z. Bychowsky (Warsaw).—Zur Kasuistik der Stauungsblutungen während eines epilept. Anfalls.
92 (No. 15.) Cardiotoxic Serum. L. Ferrannini.—Ueber ein für das Herz giftiges Serum. See abstract p. 1546.
93 (No. 16.) *Proportion of Urea in Transudates and Exudates. H. Ulrici (Halle).—Ueber den Harnstoffgehalt von Transsudaten und Exsudaten.
94 (No. 17.) *Transient Amaurosis in Lead Poisoning, Uremia and Eclampsia. J. Pal (Vienna).—Zur Pathogenese der akuten transitorischen Amaurose bei Bleikolik, Urämie und Eklampsie.
95 (No. 18.) Zur Genese der Urobilinurie. A. Meinel (Wiesbaden).

86. **Seasickness Due to Anemia of the Brain.**—Binz learned that a person taking a certain patent medicine vaunted as a preventive of seasickness, slept while under its influence and did not lose her ruddy coloring, and escaped her usual attack of seasickness. He analyzed the medicine and found it merely a mixture of chloral hydrate, of which 1 gm. was taken in three doses. The absence of pallor induced him to experiment on rabbits and he found that the blood in the ears and surface of the brain ebbs and flows synchronously. These and other facts which he details suggested to him that the cause of seasickness is merely anemia of the brain, to which the pallor testifies. It is a familiar fact that anemia of the brain induces nausea and vomiting, while chloral dilates the cerebral vessels and thus prevents anemia and hence might protect against seasickness. He does not attempt to explain why the rocking of the ship induces anemia of the brain, but is convinced that it does so. The retching and vomiting induced by this anemia in the brain call the abdominal muscles into play, and this in turn drives the blood back to the head and the symptoms are arrested for the time being. The stomach has only a passive rôle in seasickness and is incited to vomiting by the brain, regardless of whether it is full or empty. Everything that tends to promote and increase the flow of blood to the brain has a prophylactic, relieving or curative action in this affection. The brain should be nourished with strengthening food and the blood supply favored by the horizontal position and medicinally by drugs that dilate the blood vessels in the brain. Chloral hydrate, potassium bromid, amyl nitrite and antipyrin might be tentatively tried.

88. **Cryoscopy in Liver Affections.**—Ferrannini states that the freezing-point in 4 cases of atrophic venous cirrhosis ranged from —.55 to —.75 C.

93. **Urea in Transudates and Exudates.**—Ulrici found an average of .485 per cent. of urea in pericarditic effusions and .019 per cent. in pleuritic effusions.

94. **Transient Amaurosis in Uremia, Eclampsia and Lead Poisoning.**—The transient amaurosis sometimes observed in these different affections is due to the vascular tension common to all three. It vanishes as the tension becomes relaxed.

Deutsches Archiv f. Klin. Medicin, Leipsic.

Last indexed page 714.

96 (LXXV, 3-5.) *Genesis of Pulmonary Phthisis and Variability of Formation Designated "Tubercle." E. Aufrecht (Magdeburg).—Die Genese der Lungenphthise und die Verschiedenheit der mit dem Namen "Tuberkel" bezeichneten Gebilde.
97 Unusual Forms of Pneumonia. F. Galdi (Naples).—Pneumonia desquamativa obliterans. One Case. Pneumonia bei Stauung im kleinen Kreislauf und bei acuter Endocarditis. One case.
98 *Experimental Research on Heat Production.—Ueber Wärmeproduction, Wärmeregulation und Fieber. C. Hirsch.—Zur Methodik der thermo-elektrischen Temperaturmessung. Ibid. and O. Müller.—Beiträge zur Wärmetopographie des Warmblüters. Ibid.—Zur Wärmetopographie des curaresirten Kaninchens nach Wärmestich. C. Hirsch and F. Rolly.
99 Arrested Development of Limbs After Articular Rheumatism in Childhood. G. Hoppe Seyler (Kiel).—Ueber Entwicklungshemmung der Extremitäten nach Gelenksrheumatismus im Kindesalter.
100 Beitrag zur Kenntniss der primären malignen Tumoren der Pleura. C. Gutmann.
101 Beiträge zur Chemie des Sputums. F. Wanner.
102 Ueber alimentäre Albuminurie. Inouye (Rostock).
103 Study of Albuminoids Precipitated by Acetic Acid in Urine. Matsumoto.—Ueber die durch Essigsäure ausfällbare Eiweissubstanz in pathologischen Harnen. Beitrag zur Lehre der sogen. Nucleoalbuminurie und Globinurie.
104 *Influence of Pulmonary Tuberculosis on Length of Life and Working Capacity and Value of Sanatorium Treatment. E. Stadler (Marburg).—Einfluss der Lungentub. auf Lebensdauer und Erwerbsfähigkeit und der Werth der Volksheilstättenbehandlung.
105 Studien zur Bakteriologie der Lungen und Bronchioabteilungen. Beitrag zur Lehre von der Mischinfection bei Lungentuberculose. H. Kerschensteiner (Munich).
106 Ueber die colorimetrische Bestimmung des Eisens. Schwenkenbecher.
107 Zwei Fälle von chron. lymphat. Leukamie. H. Zinkeisen.
108 (No. 6.) Experimental Amyloid Degeneration. C. Tarchetti. Untersuchungen über exp. amyloide Entartung.
109 Early Diagnosis of Typhoid. E. Adler (Prague).—Zur Frühdiagnose des Typhus abd. durch die Milz-punction nebst einem Anhang über die Gruber-Widal'sche Blutserumreaction.
110 Chromic Acid Intoxication. R. Rössle (Kiel).—Locale Wirkungen der Chromsäure. Fall von acuter Chromsäurevergiftung.

96. **Genesis of Pulmonary Tuberculosis.**—Aufrecht is convinced that the germs enter the system by way of the tonsils. The passage of the bacilli into the blood is explained by the permeability of the intact vessel wall for tubercle bacilli from swollen and adherent lymph glands. This permeability is now established beyond question, and solves the problem of the migration of the germs from tuberculous glands in neck and mediastinum. He regards scrofula as the main factor in the predisposition to tuberculosis, and defines the essence of scrofula as a congenital or acquired enhanced permeability of the vessel walls for the elements of the blood and the bacteria circulating in it. The apex offers the most favorable point for the settling of bacilli that have found their way into the pulmonary arteries or veins on account of its defective circulation and also the stress of mechanical action. Sedentary occupations render the circulation in the apices still more defective than naturally. The apex also suffers from traction of muscles during exercise. Violent coughing causes a backward stagnation of air in the apices as they are covered only by soft parts, which do not participate in expelling the air. These factors may have injured the apex before the arrival of the bacteria. As they proliferate in some small blood vessel in the apex they make the walls thicker by their own bulk and disturb the blood supply in the parts irrigated by the vessel. The result is a little patch of necrosis in which the bacilli settle and the caseous tubercle is the result. It is the product of the combined action of the necrosis and of the bacilli. The area involved may heal after the necrotic caseous patch has been thrown off or transformed into a fibrous nodule. Healing is hindered by the irritation of the lung tissue from the presence of the caseous patch as a foreign element in the confined space. This irritation induces infiltration, and as this develops and spreads, pulmonary phthisis is established. The cavity is due to the breaking down of the infiltrated tissue, and treatment should aim to prevent or arrest these secondary pneumonic processes, with specific treatment to exterminate the primary bacterial agents.

98. **Heat Production.**—The results of the comprehensive research conducted by Hirsch, Müller and Rolly, at Leipsic, demonstrate that the glands, and especially the liver, have a larger share in the production of heat than has hitherto been credited to them. Among the phenomena that favor this view is the rapid disappearance of glycogen in the liver and the suspension of glycosuria during fever in a diabetic. There are evidently two parallel processes in the production of heat, 1, a specific destruction of albumin modified by the action of toxins, and 2, a central irritation or stimulation in the sense of the hyperthermia induced by puncture of a heat center.

104. **Duration of Life and Working Capacity in Pulmonary Tuberculosis.**—Stadler has collected statistics which show that tuberculous subjects live on an average at least six to seven years after infection. The course of the disease does not seem to be modified by injurious professional conditions, and hence a change of occupation is not imperative. Some degree of working capacity continues on an average until after the fifth

year in about half of those affected. In his experience at the Marburg polyclinic, out of each 100 of the patients engaged in indoor work 23 were tuberculous; 22 in each 100 with out-of-door occupations, and 29 in each 100 of those engaged in trades with much dust, smoke, soot or vitiated air, except the stonecutters, of whom fully 50 per cent. of 151 were tuberculous. His statistics include 1,504 men and 851 women. Of this number 670, that is 382 men and 288 women, have been followed for a number of years. The course of tuberculosis was more prolonged in the women and in subjects engaged in indoor work, who are usually in better circumstances. Comparing these 670 cases with Weicker's 1,395 cases of pulmonary tuberculosis treated in the sanatoria, the results show that sanatorium treatment as at present conducted has prolonged by three years the working capacity of tuberculous subjects in the first or second stage of the disease in about a fifth to a fourth of the entire number. After the third or fourth year the mortality and loss of working capacity do not show the influence of the sanatorium treatment.

Mitteilungen a. d. Grenzgebieten d. M. u. Chir., Jena.

111 (II, 2.) *Functional Tests of Kidneys. J. Israel.—Ueber funkt. Nierendiagnostik.
112 *Ibid. L. Casper and P. F. Richter.—Was leistet die funkt. Nierendiagnostik? Reply to above.
113 *Phloridzin Test. J. Israel.—Ueber die Leistungsfähigkeit der Phloridzinmethode. Reply to above.
114 *Ueber Arthropathia psoriatica. C. Adrian (Strasburg).
115 Fistulæ in Course of Inflammation of Cecum. R. Mühsam.—Die im Verlaufe der Blinddarmentzündung auftretenden Fisteln.
116 *Ueber Pylorusstenose im Säuglingsalter. W. Freund (Breslau).

111 to 113. **Functional Kidney Tests.**—Israel warns against trusting too implicitly to the phloridzin and other functional tests which may impart a false sense of diagnostic security. The variations in the freezing-point and the phloridzin test frequently contradict each other, and repeated tests on the same person may give different results at different times. Rovsing ventured to remove a kidney in a case in which the phloridzin test was negative on both sides, and Israel has also done this twice, with complete success in all. The lack of any elimination of sugar does not necessarily indicate the loss of the physiologic functions in all cases. The freezing-point is not always invariable even in health, and has a wide range in varying circumstances in the same person.

114. **Psoriatic Arthropathy.**—Adrian applies this term to a multiple joint affection complicated with psoriasis and distinguished by its chronic course, the lack of influence of the salicylates and the frequent deformities and destruction of the joints which it may entail early. He has found records of 81 cases in the literature, and describes another personally observed. The patients were mostly males, usually between 40 and 45, affected with generalized psoriasis. No predisposing factor could be discovered in the histories except in a few isolated instances in which a central or reflex trophoneurosis might be incriminated. There was no evidence of an infectious character, except, possibly, the occurrence of exacerbations occasionally during the protracted course of the disease. No connection could be discovered between it and gout, gonorrhea or syphilis. Treatment should combat both the arthropathy and psoriasis and baths are beneficial for both. The mild forms with merely arthralgia are generally curable, but in the graver forms the prognosis is bad.

116. **Stenosis of Pylorus in Infants.**—Freund has been able to collect 10 cases of this condition in infants in which an operation was performed, with 7 permanent successes. Knöpfelmacher has published a case in which he discovered hyperchlorhydria with the stenosis and all symptoms permanently disappeared as soon as the child was put on whole milk. In others on record improvement was likewise obtained on change of diet. Freund has observed 6 cases, all breast nurslings. Case 1 was operated on, but soon succumbed, and the autopsy disclosed that the antecolic gastrojejunostomy and enteroanastomosis had been surgically successful, but ulcerations were found in the jejunum, the source of the fatal hemorrhages. In Case 2 the Günzburg reaction was always positive, and so soon as the child was taken from the breast and put on whole milk all disturbances ceased. In 2 of the children the stenosis proved rebellious to all internal measures and the children died. Another rapidly recovered when put on whole milk after cream had been removed, and in another the symptoms of stenosis vanished on administration of a tablespoonful of Carlsbad water before each meal. One of the children developed the stenosis while still under observation after birth, and it was unmistakably primary. Freund's experience indicates, therefore, that the stenosis is generally and most probably spastic. Carlsbad water should be given first and then whole milk, omitting the fat if necessary. If the weight still falls gastroenterostomy should be done without delay to allow the favorable moment to pass.

Wiener Klin. Wochenschrift, Vienna.

Last indexed page 1177.

117 (XVI, 13.) *Topical-Diagnostic Significance of Tickling Reflex in Brain Affections. A. Pick (Prague).—Zur topisch-diagnostischen Bedeutung des Kitzelreflexes bei cerebralen Affectionen.
118 *Zur Aetiologie der progressiven Paralyse. E. Raimann.
119 *Kasuistischer Beitrag zur operativen Behandlung der eitrigen Meningitis. H. Haberer.
120 Suppurative Thrombophlebitis from Carious Tooth. N. Damianos.—Eitrige Thrombophlebitis der Sinus cavernosi infolge von Zahnkaries.
121 Abscesses of Nasal Septum. E. Fuchsig.—Zur Aetiologie und Pathologie der Abszesse der Nasenscheidewand.
122 (No. 14.) *Die spastische Obstipation. G. Singer.
123 *Ein weiterer Beitrag zur Autointoxikationstheorie bei Hyperemesis gravidarum. E. Dirmoser.
124 Pankreastumor mit Duodenalstenose und schweren Ikterus. G. Lotheissen.
125 Determination of Total Purin in Urine. W. Hall (Manchester).—Zur klinischen Bestimmung des Gesamtgehaltes von Purin im Harn mittels Purinometer.
126 (No. 15.) *Moser's Scharlach-Streptokokkenserum. D. Pospischill.
127 Changes in Blood After Injection of Serum. F. Hamburger and E. Moro.—Ueber die biologisch nachweisbaren Veränderungen des menschlichen Blutes nach der Seruminjektion.
128 *Treatment of Relapsing Fever. J. Karlinski (Cajnica, Bosnia).—Zur Therapie des Rückfallfiebers.
129 (No. 16.) *Early Diagnosis of Pleuritis Diaphragmatica. R. R. v. Stenitzer (H. Lorenz's Service, Vienna).—Zur Frühdiagnose der Pleuritis diaphr.
130 Reliability of Thermophor Apparatus for Keeping Food Warm. F. Schardinger.—Ueber die Zulässigkeit des Warmhaltens von zum Genuss bestimmten Nahrungsmitteln mittelst Wärme speichernder Apparate, sog. Thermophore.
131 *Ueber retrograde Inkarzeration des Darmes. A. Lange.
132 Plastic Reproduction of Stools in Gastrointestinal Affections. H. Roeder.—Die Einführung plastischer Lehrmittel in die Klinik der Magendarmkrankheiten.

117. **Tickling Reflex in Cerebral Affections.**—Pick describes a case in which a focus of softening corresponded with the hemiplegia observed and was also probably connected with the absence of the tickling plantar and axillary reflex on the side opposite to the focus. The latter was located in the frontal plane characterized by the corp. subthalam. The fibers involved were those connecting the thalamus and lenticular nucleus and these ganglia are the ones to which are referred the involuntary mimic movements and involuntary laughing. It is, therefore, logical to associate their degeneration with the absence of the tickling reflex. Pick thinks that this reflex has not heretofore been accorded the importance it deserves. Bleuler has reported a case in which symptoms of a cerebral lesion were accompanied by absence of the tickling reflex on the right side, and the left internal capsule was found diffusely degenerated. Bechterew also observed the absence of the tickling reflex in a cerebral affection, but without autopsy.

118. **Etiology of Progressive Paralysis.**—Raimann has been investigating this subject at v. Wagner's clinic, Vienna, along the lines suggested by Bruce and Robertson, that is, the theory that autointoxication from the digestive tract is the principal etiologic factor, and that the colon bacillus is involved in it to a large extent. Raimann's results were negative in so far as the agglutination reaction can be accepted as a test of the participation of the colon bacillus in the process.

119. **Operative Treatment of Suppurative Meningitis.**—Haberer describes a case of leptomeningitis involving the entire hemisphere of the brain in a woman of 36. The symptoms indicated a circumscribed process, secondary to a phlegmon of the temporal region, and, after first trephining, the skull and dura were opened up, but as far as the eye could reach there was the same suppurative inflammation. Each intervention was followed by marked abatement of the symptoms. The im-

provement in the general condition continued for two days after the last, but then the patient rapidly sank. The operations were performed by v. Eiselsberg and he is convinced that if he had been less cautious and had opened up the dura at first into sound tissue, it is possible that the patient might have recovered. He believes that the lesion was circumscribed at the time of the trephining and might have responded favorably to more thorough evacuation of the pus. Lumbar puncture after trephining was negative.

122. **Spastic Obstipation.**—Singer distinguishes between symptomatic and idiopathic spastic obstipation and defines the symptomatology of the latter and outlines the treatment. Purgatives and laxatives, even cascara, should be strictly forbidden, he states. The continuous use of saline purgatives is liable to increase the tendency to spasm, and especially courses of mineral waters. Mechanical procedures, massage and electricity are also contraindicated. Oil enemata are useful if taken warm enough. More permanent benefit can be derived from measures addressed to the nervous foundation of the trouble, particularly from hydrotherapy. The application of moist heat has proved very beneficial in his experience, a combination of a moist abdominal bandage and thermophore appliance. Hot cataplasms and sitz baths also have a favorable effect, but the sovereign remedy is belladonna, which he orders in the form of suppositories. His experience has been that the internal sphincter is usually the seat of the spasmodic contraction. For several years he has used English bougies, introduced into the rectum, when the constriction was in this region. He inserts the bougie in the knee-elbow position, sometimes preceding it with cocain or belladonna in case of very sensitive patients. It is occasionally impossible to pass it beyond the internal sphincter at first, but by leaving it for a time in contact with the sphincter it can then be readily passed through. Conical bougies meet with less resistance. The reaction is felt by the patient at first as a painful contraction and the bougie is held tight. In a few minutes the contraction subsides and the bougie can be twisted around. He begins with a small caliber and increases the size gradually. The results of this method of treatment have been so fine that he urgently recommends it to others for suitable cases. In a few instances he has found that the constriction vanished in the rectum but appeared higher up in the intestines. Generally the procedure, alone or associated with other measures, rapidly abolished the spasmodic contraction and induced defecation. Little can be anticipated from dietetic measures in spastic obstipation. On the other hand, change of scene, rest cures, relief from mental stress or worry and other means of reducing the nervous irritability will prove invaluable factors in the cure. Many persons who are constipated at home have no trouble in this respect when traveling. He states that in diagnosing the aspect of the stools is very important, especially the ribbon-like or grooved pencil-like forms. He has frequently noted blood in the stools, and in one case of enterospasm with kidney stone one of the attacks ended with the evacuation of a large amount of fresh and coagulated blood. There may also be strips of mucus. The contraction of the internal sphincter is the chief differentiating feature.

123. **Autointoxication as Cause of Uncontrollable Vomiting of Pregnancy.**—Dirmoser has long proclaimed this theory of the etiology and now reports a case in which a toxin was derived from the contents of the intestines so powerful that it killed the laboratory animals in three hours. Spontaneous premature delivery occurred at the height of the attack and the placenta was examined for a possible toxin, but animals inoculated with an extract of the placenta showed no signs of intoxication and remained as lively as before. The absence of a toxin in the placenta speaks against a fetal origin for the cause.

126. **Moser's Scarlet Fever Serum.**—This article describes the results of serum treatment at the Franz Josef Hospital at Vienna, and the writer joins the chorus of those who report marked benefit from its use. He reports the details of the 26 cases and emphasizes the mild course of streptococcus sepsis occurring two weeks after the injection, terminating in recovery. Out of 13 children considered moribund when received, 5 recovered after serum treatment, and 9 out of 12 with dubious to bad prognosis. The immediate results of the serum were always decline of temperature, diminished frequency of pulse and respiration, subsidence of delirium, tranquil sleep, the periphery grew warm and cyanosis disappeared. During the further course the necrotic patches became red, the fetor vanished partially or entirely and the children lost their very sick aspect. Even in the fatal cases there was always marked improvement after the injections.

128. **Saline Infusion in Treatment of Relapsing Fever.**—Karlinski noted that the addition of salt to a serum which agglutinated cultures of the parasite of relapsing fever immeasurably enhanced the agglutinating power. This suggested that salt might have a favorable effect on the course of the disease, and he reports the clinical application of this suggestion with results which apparently confirm the correctness of the assumption. In the epidemic of 890 cases he observed only 160 with but one attack, while 490 had two, 140 three, and 92 four. In his 5 cases treated by subcutaneous injection of 1,200 c.c. of a 1 per cent. saline solution in the course of forty-five minutes, none had a second attack, although the first had been very severe. He thinks it is possible that salt introduced into the system in some other way might prove equally effective.

129. **Early Diagnosis of Pleuritis Diaphragmatica.**—The character of the pains, the disturbance in the action of the diaphragm and a peculiar backward and energetic contraction of the upper portion of the abdominal rectus on one side, during inspiration, bringing into prominence the attachment of the muscle to the costal cartilage and the ensiform process, are the chief signs of this form of pleuritis, with distressing cough and considerable dyspnea. Stenitzer relates a case in which early differentiation of a serofibrinous pleuritis diaphragmatica was possible, and prompt treatment soon resulted in a cure free from complications. The pains are intense; they are located in the lower part of the thorax and radiate into the epigastrium, hypochondrium, etc., and especially into the sacrum and shoulder on the same side. The pain in the shoulder may be the first sign to suggest inflammation in the diaphragm. Mussy's "diaphragm point" was sensitive to pressure and also the phrenic nerve in the neck, in the 2 cases described. The high position of the diaphragm on the affected side was also striking, as likewise the abnormal excursions, the absence of transposition of the base of the lung during respiration, and also of Litten's diaphragm sign. Singultus has been frequently observed, but did not occur in Stenitzer's experience, except agonal in the one purulent fibrinous case.

131. **Retrograde Incarceration of Intestine.**—Langer reports a case which he qualifies as the first clinical case on record of "retrograde incarceration" of the intestine in which the mesentery of the intervening portion lay free in the abdominal cavity. Maydl has expressly denied the possibility of such an occurrence. The intra-abdominal complication induces local meteorism but no peristaltic movements in the region involved, and only an operation will reveal the two loops in the hernia. The intervening portion must be removed with the incarcerated loops as its blood supply will be impaired.

Medizinskoe Obozryenie, Moscow.

Last indexed page 812.

133 (LVIII, 16.) Simultaneous Erysipelas and Scarlet Fever. One Case. P. K. Haller.—Sovmyestnoe tetchenie rozhi i skarlatini.

134 Case of True Variola After Varicella and Vaccination. K. Fleroff.—Slutchai zabolyevanie naturalnoi ospoi posliye vyetrenoi i poslye vacciny.

135 *Tuberculous Intestinal Stenosis. A. V. Nikolski.—O bugortchatkovom suzhenii kishek.

136 Sho takoe "sarcome angioplastique Malassez I Monod"? G. V. Vlassof.—Study of path. anatomy of three cases.

137 (No. 17.) *Twenty-one Cases of Operation for Extrauterine Pregnancy. A. Eberlin.—21 slutchai operatzii pri vnyematotchnoi beremennosti.

138 Hypertrophy of Breasts During Pregnancy. One case. A. P. Kokhanoff.—Slutchai tchrezmyernova uvelitcheniya grudei pri berem.

139 Threatening Phlegmon of Throat Cured by Antistreptococcus Serum. A. Ivanoff.—Pervitchnaya phlegmona gortani lyetchennaya antistrept. syvorotkoi.

140 **Reflex Affections Originating in Upper Air Passages.** T. Stephanovski.—K kasuistikye zabolyevanii, proiskhodyashtchikh reflektorno iz verkhnikh vozdukhonosnykh putei.

141 *Affections of Upper Air Passages of Malarial Origin. L. Sverzhevski.—Zabolyevaniya verkhnikh dykhatelnykh putei malaryienova proiskhozhdeniya.

142 Study of the Refraction of the Blood. P. S. Usoff.—O refraktzii krovi.

143 (No. 18.) *Non-Malignant Tumors of Intestines in Children. B. A. Egiz.—O dobrokatchestvennykh opukholyakh kishetchnika u dyetei.

144 Case of Resection of Brachial Plexus. N. V. Sinyushin.—Slutchai resektzii pletchevova spleteniya.

145 Study of Pathologic Anatomy of Case of "Frosted Liver" and Obliterating Inflammation of Pericardium and Pleura. V. S. Dyelitzki.—Slutchai tak naz. glazurnoi petcheni i oblit. vospaleniya okoloserdiya i plevry.

135. **Tuberculous Intestinal Stenosis.**—Nikolski reports a case personally observed and concludes from a study of the literature that this affection may cause gradually developing or suddenly acute symptoms or may run an entirely latent course. The clinical picture is that of dyspepsia or chronic diarrhea. It is most frequent between 20 and 40 and is usually secondary and located in the lower part of the ileum. Surgical intervention is the only treatment and should be prompt, with careful search for multiple strictures.

137. **Twenty-one Operated Cases of Extrauterine Pregnancy.**—Eberlin's patients all recovered. Laparotomy was done 15 times, colpotomy posterior twice, and incision of the posterior vault 4 times. The pregnancy was abdominal in one case, interstitial in another and tubal in 15, with hematocele in 4. The adnexa were removed on one side in 12 and on both sides in 2; uterus and adnexa in 1. He thinks that immediate laparotomy is required when the patient shows symptoms of what he calls "volcanic abortion," but when the volcano is merely smouldering, a favorable moment may be waited for, while a hematocele may be compared to an extinct volcano, the débris of which can be readily removed through an incision in the posterior vaginal vault.

141. **Malarial Affections of Air Passages.**—Coryza, cough, bronchitis and pleuritis have been observed in malarial districts, evidently due exclusively to the infection, as they were cured by quinin and were rebellious to other measures, including the usual expectorants. In the 4 cases described the first patient was a man of 46 with a severe, dry, spasmodic cough and malarial parasites in the blood, with a tendency to dyspnea and a sensation of oppression in the chest. The second patient complained of coryza, cough and fever, all the symptoms vanishing under quinin. The third patient presented symptoms of sudden pleuritis, vanishing with equal suddenness on exhibition of quinin. In the fourth patient the parenchyma of the lung was involved. These affections are observed most frequently in comparatively young persons residing in or recently arrived from malarial districts. The malarial coryza is distinguished by the marked variations in the morbid symptoms in the course of a single day. The nasal mucosa is red, dry and tender, or the symptoms may be those of hay fever. The cough is like a "nervous cough." The bronchitis may be catarrhal or "dry," the cough resembling that of pertussis. The diagnosis of the malarial origin is not difficult if the possibility occurs to the physician, and the rapid cure under quinin confirms it. Sverzhenski does not attribute these malarial manifestations to local toxic action but to the intermediation of the nervous system.

143. **Non-Malignant Intestinal Tumors in Children.**—Egiz reports a case of fibro-leiomyoma removed from the small intestine of a girl of 11. The tumor was rooted in the mucous membrane of the intestine and was the size of a mandarin orange. It developed without causing symptoms of constriction or occlusion and manifested its presence by giving rise to antiperistaltic movements, pains in the abdomen and vomiting two or three times a week for six months. There was occasional constipation, no fever, no tenderness. Nothing was found to explain the pains on an exploratory laparotomy, but as the antiperistaltic movements, pains and vomiting increased in intensity, minute palpation revealed a small tumor in the left side. A second laparotomy showed that the tumor originated in the mucosa of the small intestine, and it was easily removed. The little patient died four days later from septic peritonitis and the autopsy disclosed that there must have been invagination at the time the tumor was removed as a linear wound was found in the intestine a short distance above, evidently inflicted when the intestine was incised. Egiz reviews the literature on the subject of non-malignant growths in children's intestines, which may be of several varieties. In regard to polyps he states that in only 30, that is .01 per cent. of the 300,260 children admitted to the Olga Children's Hospital at Moscow, have polyps been found. No cases of benign tumors in the intestines in children have been reported in Russia, but he has found 6 cases mentioned in German literature. Pochhammer published the case of two brothers, one 15, the other 6 years of age, who recovered after ablation of an adenoma in the rectum of each. Clutton's patient was a child of 8 with a dermoid cyst in the sigmoid flexure. Hüter observed a case of adenoma in the submucous tissue of the ileo-cecal valve. The patient was a girl of 10, who died with symptoms of gastrointestinal catarrh. Buchwald has published a case of two large cysts in the mucosa of the small intestine which caused complete occlusion. The patient was a boy of 6 who died the day after the laparotomy. The largest diameters of the cysts were 17 and 10 cm. and the course of the case indicated that they must have been congenital.

Books Received.

Acknowledgment of all books received will be made in this column, and this will be deemed by us a full equivalent to those sending them. A selection from these volumes will be made for review, as dictated by their merits, or in the interests of our readers.

THE PRACTICAL MEDICINE SERIES OF YEAR-BOOKS, Comprising Ten Volumes on the Year's Progress in Medicine and Surgery. Issued Monthly. Under the General Editorial Charge of Gustavus P. Head, M.D., Professor of Laryngology and Rhinology Chicago Post-Graduate Medical School. Volume V, Obstetrics. Edited by Reuben Peterson, A.B., M.D., Professor of Obstetrics and Gynecology University of Michigan. April, 1903. Cloth. Pp. 204. Price, $1.25 net. Chicago: The Year-Book Publishers.

A COMPLETE LIST OF THE DRUG STORES IN THE DISTRICT OF COLUMBIA. Arranged in Systematic Order for the Use of Traveling Men. By Fred T. Hafelfinger, 1110 Fourteenth St., N.W., Washington, D. C. Compiled from the Directory of 1903. Paper. Pp. 8. Price, $0.25.

THE ERRORS OF ACCOMMODATION AND REFRACTION OF THE EYE AND THEIR TREATMENT. A Handbook for Students. By Ernest Clarke, Fellow of the Royal College of Surgeons of England. Cloth. Pp. 225. Price, $1.75 net. New York: William Wood & Co. 1903.

THE REFRACTION OF THE EYE AND THE ANOMALIES OF THE OCULAR MUSCLES. By Kenneth Campbell, M.B., Edin., F.R.C.S. Eng., Surgeon to the Western Ophthalmic Hospital. Cloth. Pp. 214. Price, $1.75 net. New York: Wm. Wood & Co. 1903.

THE PRACTICAL DETAILS OF CATARACT EXTRACTION. By H. Herbert, F.R.C.S. Eng., Major, I.M.S., Professor of Ophthalmic Medicine and Surgery, Grant Medical College. Cloth. Pp. 109. Price, $1.25 net. New York: Wm. Wood & Co. 1903.

THE PHYSICIANS OF THE DISTRICT OF COLUMBIA. Arranged in Systematic Order for Detail Men. By Fred T. Hafelfinger, 1110 Fourteenth St., N.W., Washington, D. C. Compiled from the Directory of 1903. Paper. Pp. 21. Price, $1.00.

AMBULANCE WORK AND NURSING. A Handbook on First Aid to the Injured, with a Section on Nursing, etc. Profusely Illustrated. Cloth. Pp. 304. Price, $3.50 net. Chicago: W. T. Keener & Co.

HOW TO KEEP WELL. An Explanation of Modern Methods of Preventing Disease. By Floyd M. Crandall, M.D. Cloth. Pp. 511. Price, $1.50 net. New York: Doubleday, Page & Co. 1903.

New Patents.

Patents of interest to physicians, May 5 and 12:

727069. Atomizer. Carl Bomeisler, New York City.
726889. Artificial foot. George F. Ehrle, Milwaukee, Wis.
727344. Covered suppository and making same. David Genese, Baltimore.
727145. Sterilizing and packaging surgical absorbent dressing. Robert W. Johnson, New Brunswick, N. J.
727383. Joint for artificial limbs. Edward Koeber, Chicago.
727159. Catamenial bandage. Samuel P. Langdon, Philadelphia.
727467. Invalid bed. Walter C. Sennett, Portland, Me.
727570. Means for separating air from liquid in carbonating or other apparatus. Charles L. Bastian, Chicago.
728160. Hypodermic syringe. Thos. A. Chappell, Bronwood, Ga.
728091. Apparatus for forming tablets, etc. Emil Duhring, Berlin, Germany.
727949. Bed pan. Lena M. Hoffman, Philadelphia.
728112. Cabinet for eye-testing devices. John M. Johnston, Chicago.
727645. Dose indicator for medicine bottles. Norman S. Lea, Charleston, S. C.
728175. Dilating nozzle. Gustav Otto, Jersey City, N. J.
728003. Massage cup. Charles Pfanschmidt and J. Siefert, Chicago.

The Public Service.

Army Changes.

Movements of Officers of the Medical Department, U. S. A., under orders from the Adjutant-General's Office, Washington, D. C., for the two weeks ending May 23, 1903:

Ashburn, James K., contract surgeon, is granted leave of absence for one month from about May 1, 1903.

Barney, Charles N., first lieut. and asst.-surgeon, will proceed to Ft. Schuyler for duty.

Hartnett, Eugene H., first lieut. and asst.-surgeon, on his relief from duty at Ft. Columbus, will proceed to Key West Barracks, to relieve First Lieut. Charles N. Barney.

Lippincott, Henry, colonel and assistant surgeon-general, is granted leave of absence, to commence about June 1 for one month, with permission to apply for an extension of two months and fifteen days.

Pettyjohn, contract surgeon, is relieved from duty in the Department of the Columbia, and will proceed to his home, Augusta, Ga., for annulment of contract.

Reagles, James, contract surgeon, is relieved from duty at Ft. Snelling, and will proceed to Ft. Keogh for duty.

Roberts, D. M., contract surgeon, is granted leave of absence for one month from May 15, with permission to apply for an extension of two months.

Wall, Francis M., contract surgeon, is relieved from duty at Ft. Thomas, and will proceed to Columbus Barracks for duty, to relieve Contract Surgeon Harper Peddicord, who will proceed to Vancouver Barracks and report to the commanding general, Department of the Columbia, for assignment to duty in Alaska.

Wilcox, Timothy E., lieutenant-colonel and deputy surgeon-general, chief surgeon Department of the Columbia, will proceed to such posts of that department in Alaska as may be necessary on business pertaining to the sanitary and medical inspection thereof.

Bloombergh, Horace D., first lieut. and asst.-surgeon, is granted an extension of leave for one month.

Miller, J. E., contract surgeon, is granted leave for twenty-three days.

Pinkston, Omar W., contract surgeon, now at Kansas City, Mo., is relieved from further duty in the division of the Philippines and will proceed to Madison Barracks for duty.

Pease, F. D., contract surgeon, is granted an extension of leave to include June 30.

Rafter, John A., contract surgeon, is relieved from duty at Madison Barracks, to take effect on the arrival at that post of Contract Surgeon Omar W. Pinkston, and will then proceed to his home, West Winfield, N. Y., for annulment of contract.

Shepard, John L., first lieut. and asst.-surgeon, is relieved from further duty at Ft. Apache and will proceed to San Francisco, Cal., and report for assignment to duty at the U. S. General Hospital, Presidio.

Navy Changes.

Changes in the Medical Corps of the Navy, for the week ending May 13:

Surgeon F. W. Wieber, granted sick leave for two months.

P. A. Surgeon L. Morris, ordered to the *Minneapolis*.

Asst.-Surgeon R. H. Michels, ordered to the Asiatic Station.

Asst.-Surgeon E. M. Brown, detached from the Naval Hospital, Norfolk, Va., and ordered to the Naval Hospital, Newport, R. I.

Asst.-Surgeon J. H. Holloway, ordered to the *Baltimore*.

Dr. A. J. Geiger, appointed asst.-surgeon, from May 6.

Marine-Hospital Changes.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the Public Health and Marine-Hospital Service for the seven days ended May 21, 1903:

Assistant Surgeon-General G. T. Vaughan, detailed to represent the service at the meeting of the Association of Military Surgeons at Boston, May 20-21.

P. A. Surgeon J. C. Perry, to report at Washington, D. C.

Asst.-Surgeon C. E. Decker, granted extension of leave of absence on account of sickness, for fourteen days from April 24.

Asst.-Surgeon R. L. Wilson, granted leave of absence for seven days from April 28, under provisions of Paragraph 191 of the regulations.

Asst.-Surgeon A. J. McLaughlin, granted leave of absence for two months from May 1.

Asst.-Surgeon W. K. Ward, granted leave of absence for three days from May 14, under provisions of Paragraph 191 of the regulations.

A. A. Surgeon C. B. Ford, granted leave of absence for fourteen days from June 3.

A. A. Surgeon A. C. Fraser, granted leave of absence for forty-five days, on account of sickness, from April 27.

A. A. Surgeon W. H. Marsh, granted leave of absence for seventeen days from May 8.

A. A. Surgeon W. O. Wetmore, granted extension of leave of absence for fourteen days from May 15.

A. A. Surgeon W. M. Wightman, granted leave of absence for three weeks from June 7.

A. A. Surgeon W. W. Wilson, granted leave of absence for fourteen days from May 14.

Pharmacist W. F. Schlaar, granted leave of absence for three days from May 10, under provisions of Paragraph 210 of the regulations.

BOARDS CONVENED.

Board convened at San Francisco, for physical examination of an officer of the Revenue Cutter Service. Detail for the board: P. A. Surgeon W. G. Stimpson, chairman; Asst.-Surgeon C. W. Vogel, recorder.

Board convened at Washington, D. C., May 25, for the physical examination of candidates for cadetship in the Revenue Cutter Service. Detail for the Board: Assistant Surgeon-General W. J. Pettus, chairman; Assistant Surgeon-General H. D. Geddings, recorder.

Board convened at Washington, D. C., June 15, for examination of candidates for admission as assistant surgeon in the service. Detail for the board: Assistant Surgeon-General G. T. Vaughan, Chairman; Surgeon C. T. Peckham; P. A. Surgeon H. S. Mathewson, recorder.

Health Reports.

The following cases of smallpox, yellow fever, cholera and plague have been reported to the Surgeon-General, Public Health and Marine-Hospital Service, during the week ended May 23, 1903:

SMALLPOX—UNITED STATES.

Alabama: Mobile, May 3-16, 13 cases.

California: May 3-10, Los Angeles, 1 case; San Francisco, 4 cases.

Florida: May 8-16, Chipley, 9 cases; Jacksonville, 7 cases; Pensacola, 5 cases.

Georgia: Atlanta, May 6-20, 4 cases, 1 death.

Illinois: Belleville, May 11-18, 9 cases; Chicago, May 8-16, 8 cases, 1 death; Galesburg, May 8-16, 3 cases.

Indiana: Ellwood, May 10-17, 7 cases; Evansville, May 1-16, 6 cases; Indianapolis, May 8-16, 6 cases, 1 death; Kokomo, May 8-16, 1 case.

Iowa: Des Moines, May 8-16, 1 case.

Louisiana: New Orleans, May 8-16, 7 cases, 1 death.

Maryland: Baltimore, May 8-16, 7 cases.

Massachusetts: Lawrence, May 2-9, 1 case, 1 death (doubtful).

Michigan: May 8-16, Detroit, 33 cases; Grand Rapids, 2 cases; Port Huron, 1 case.

Minnesota: Winona, May 8-16, 2 cases.

Missouri: St. Louis, May 3-17, 17 cases.

Nebraska: Omaha, May 8-16, 1 case.

New Hampshire: May 8-16, Manchester, 1 case; Nashua, 1 case.

New York: Elmira, May 8-16, 1 case; Rochester, May 7-14, 2 cases.

Ohio: Ashtabula, May 8-16, 1 case, imported from Toledo; Dayton, May 2-16, 6 cases; Toledo, April 18-May 16, 31 cases, 1 death.

Pennsylvania: Pittsburg, May 2-16, 48 cases, 7 deaths; Philadelphia, May 8-16, 35 cases, 1 death.

South Carolina: Charleston, May 2-16, 1 case; Georgetown, May 20, 1 case.

Tennessee: Memphis, May 8-16, 3 cases.

Utah: Salt Lake City, May 8-16, 5 cases, 1 imported.

Washington, Tacoma, May 4-11, 2 cases.

Wisconsin: Milwaukee, May 8-16, 3 cases.

SMALLPOX—INSULAR.

Philippine Islands: Manila, March 21-April 4, 11 cases, 2 deaths.

SMALLPOX—FOREIGN.

Austria: Prague, April 18-May 2, 11 cases.

Belgium: Antwerp, April 18-May 2, 6 cases; Brussels, April 25-May 2, 4 deaths.

Brazil: Rio de Janiero, April 19-26, 2 deaths.

British Guiana: Demerara, April 25, present and spreading rapidly.

Canada. Quebec, March 2-9, 2 cases.

China: Hongkong, March 26-April 3, 4 cases, 1 death.

Colombia: Bocas del Toro, April 28-May 5, 1 death.

France: Paris, May 1-8, 1 death.

Great Britain: Birmingham: April 25-May 2, 5 cases; Bristol, April 25-May 2, 3 cases; Dublin, April 30-May 7, 23 cases, 3 deaths; Leeds, April 25-May 2, 14 cases; Liverpool, April 25-May 2, 69 cases, 4 deaths; Manchester, April 18-May 2, 17 cases; Newcastle-on-Tyne, April 25-May 2, 1 case; Nottingham, April 18-May 2, 2 cases; Sheffield, April 18-May 2, 6 cases, 2 deaths; Sunderland, April 25-May 2, 1 case.

India: Bombay, April 14-21, 73 deaths.

Italy: Milan, March 1-31, 1 case; Palermo, April 25-May 2, 1 death.

Japan: Kobe, March 27-April 11, 3 cases.

Mexico: City of Mexico, April 26-May 3, 7 cases, 10 deaths.

Russia: Moscow, April 18-25, 5 cases, 1 death; Odessa, April 19-May 2, 4 cases, 1 death; St. Petersburg, April 4-25, 58 cases, 12 deaths; Warsaw, April 11-18, 3 deaths.

YELLOW FEVER.

Brazil: Rio de Janeiro, April 12-26, 34 deaths.

Colombia: Panama, May 7-14, 3 cases, 1 death.

Mexico: City of Mexico, April 26-May 3, 1 death; Tampico, May 8-16, 1 case, 1 death; Vera Cruz, May 2-16, 11 cases, 5 deaths.

CHOLERA—INSULAR.

Philippine Islands: Manila, March 21-28, 1 case, 1 death. Provinces, March 21-28, 164 cases, 93 deaths; not previously reported, 14 cases, 14 deaths; March 28-April 4, 201 cases, 141 deaths; not previously reported, 521 cases, 261 deaths; April 4-11, 64 cases, 35 deaths; not previously reported, 547 cases, 291 deaths.

CHOLERA.

Straits Settlements: Singapore, March 21-April 4, 13 deaths.

PLAGUE—INSULAR.

Hawaii: Honolulu, May 10, 1 death.

Philippine Islands: Manila, March 21-28, 6 deaths; March 28-April 4, 6 cases, 6 deaths.

PLAGUE—FOREIGN.

Australia: Brisbane, Feb. 1-28, 5 cases, 2 deaths.

Brazil: Rio de Janeiro, April 12-26, 1 death.

China: Hongkong, March 27-April 3, 28 cases, 24 deaths.

India: Bombay, April 14-21, 1,320 deaths; Karachi, April 4-19, 372 cases, 340 deaths.

Mexico: Mazatlan, May 14, 1 case.